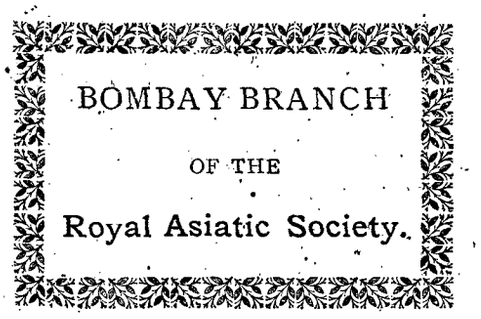
00134463




Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020

00134463

EAST INDIA (PROGRESS AND CONDITION).

# STATEMENT

EXHIBITING THE

# MORAL AND MATERIAL PROGRESS AND CONDITION

OF

# INDIA

## DURING THE YEAR 1908-9.

134463

FORTY-FIFTH NUMBER.

(*Presented pursuant to Act* 21 & 22 *Vict. c.* 106, *s.* 53.)

India Office,
19 May 1910.

RICHMOND RITCHIE,
Under Secretary of State for India.

*Ordered, by* The House of Commons, *to be Printed,*
9 *June* 1910.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

LONDON:
PRINTED FOR HIS MAJESTY'S STATIONERY OFFICE,
BY EYRE AND SPOTTISWOODE, LTD.,
PRINTERS TO THE KING'S MOST EXCELLENT MAJESTY.

And to be purchased, either directly or through any Bookseller, from
WYMAN AND SONS, LTD., FETTER LANE, E.C., and
32, ABINGDON STREET, WESTMINSTER, S.W.; or
OLIVER AND BOYD, TWEEDDALE COURT, EDINBURGH; or
E. PONSONBY, 116, GRAFTON STREET, DUBLIN.

164. [*Price* 1*s.* 2*d.*]

# PREFACE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year.

# TABLE OF CONTENTS.


| | PAGE |
|---|---|
| I. ADMINISTRATION AND LEGISLATION: | 1–6 |
| Administration | 1 |
| Legislation | 2 |
| II. JUSTICE AND POLICE: | 7–13 |
| Civil Justice | 7 |
| Crime and Police | 8 |
| Criminal Justice | 10 |
| Jails | 12 |
| III. FINANCE: | 14–21 |
| Form of Accounts | 14 |
| Gross Revenue and Expenditure | 14 |
| Net " " " | 15 |
| Cash Balances | 16 |
| Provincial Finance | 16 |
| Home Charges | 17 |
| Capital Outlay on Public Works | 18 |
| Debt | 18 |
| Currency and Exchange | 19 |
| Banks | 21 |
| IV. LAND REVENUE: | 22–29 |
| Land Tenures | 22 |
| Land Legislation | 23 |
| Revenue Surveys and Settlements and Land Records | 24 |
| Revenue Assessments and Incidence | 25 |
| Collection of the Revenue | 26 |
| Wards' and other Estates | 29 |
| V. REVENUE FROM TAXATION AND OPIUM: | 30–41 |
| Salt | 30 |
| Excise | 33 |
| Provincial Rates | 37 |
| Stamps | 37 |
| Customs | 37 |
| Income Tax | 38 |
| Registration | 39 |
| Opium | 40 |
| VI. AGRICULTURE: | 42–49 |
| Season and Crop Reports | 42 |
| Agricultural Produce | 44 |
| Co-operative Credit Societies | 47 |
| VII. FORESTS | 50–53 |
| VIII. MINERAL PRODUCTION AND MINING: | 54–56 |
| Mineral Production | 54 |
| Mining Concessions | 56 |
| Inspection of Mines | 56 |
| Mining Education, &c. | 56 |
| IX. MANUFACTURES: | 57–61 |
| Industrial Development | 57 |
| Large Industries | 57 |
| Factory Legislation | 59 |
| " Inspection | 60 |
| Patents and Designs | 61 |
| X. TRADE: | 62–66 |
| Foreign Seaborne Trade | 62 |
| Land Frontier Trade | 65 |
| Coasting Trade | 65 |
| Shipping | 65 |
| Freights | 65 |
| Working of the Merchandise Marks Act | 66 |
| Joint Stock Companies | 66 |
| XI. PUBLIC WORKS: | 67–79 |
| General | 67 |
| Railways | 68 |
| Irrigation | 72 |
| Buildings and Roads (Civil) | 77 |
| XII. POST OFFICE AND TELEGRAPHS: | 80–84 |
| Post Office | 80 |
| Telegraphs | 82 |
| Indo-European Telegraph Department | 84 |
| XIII. SCIENTIFIC DEPARTMENTS: | 85–92 |
| General | 85 |
| Board of Scientific Advice | 85 |
| Survey of India | 85 |
| Other Surveys | 86 |
| Meteorological Department | 87 |
| Agricultural Departments | 88 |
| Civil Veterinary Department | 90 |
| Forest Research Institute | 91 |
| Archæological Department | 92 |
| Medical Research Institutes | 92 |
| XIV. EDUCATION, LITERATURE AND THE PRESS: | 93–103 |
| Education | 103 |
| Literature and the Press | 100 |
| XV. LOCAL SELF-GOVERNMENT: | 104–111 |
| General | 104 |
| Municipalities | 104 |
| District and Local Boards | 108 |
| Port Trusts | 110 |
| XVI. CONDITION OF THE PEOPLE: | 112–123 |
| Vital Statistics | 112 |
| Plague | 114 |
| Sanitation | 115 |
| Hospitals, Dispensaries, &c. | 116 |
| Emigration and Migration | 117 |
| Prices | 119 |
| Wages | 120 |
| Famine or Scarcity | 121 |
| General Remarks | 122 |
| XVII. ARMY AND MARINE: | 124–125 |
| Army | 124 |
| Military Works | 125 |
| Marine | 125 |
| XVIII. FRONTIERS AND NATIVE STATES: | 126–138 |
| Frontier States | 126 |
| Native States | 130 |
| BIBLIOGRAPHY OF OFFICIAL REPORTS | 139 |


E (2)0.78. 825. 6/10. E. & S.

## Indian Currency and Weights and Measures.

*Currency.*—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are :—

| | | |
|---|---|---|
| Pie | = | $\frac{1}{192}$ penny. |
| Pice (3 pies) | = | 1 farthing. |
| Anna (12 pies) | = | 1 penny. |
| Rupee (16 annas) | = | 1*s.* 4*d.* |

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

*Weights and Measures.*—The weights adopted in Government transactions and by the railway companies are as follows :—

| | | | | |
|---|---|---|---|---|
| 1 tola | = 180 grains | | = | 11·66 grams. |
| 1 chittak (5 tolas) | = 900 „ | | = | 58·32 „ |
| 1 ser (16 chittaks) | = $2\frac{1}{2}$ troy lb. | (or $2\frac{2}{35}$ lb. avoir.) | = | 933·10 „ |
| 1 maund (40 sers) | = 100 „ „ | (or $82\frac{2}{7}$ „ „ | = | 37·32 kgms. |

# CHAPTER I.

## ADMINISTRATION AND LEGISLATION.

### ADMINISTRATION.

ADMINISTRATION.

The following were the holders of the most important appointments connected with the administration of India at the end of the year under review :—

*Secretary of State.*—The Right Hon. Viscount Morley of Blackburn, O.M.

*Permanent Under Secretary of State.*—Sir A. Godley, G.C.B.

*Parliamentary Under Secretary of State.*—The Right Hon. T. R. Buchanan, M.P.

*Members of the Council of India.*—Sir J. L. Mackay, G.C.M.G., K.C.S.I., K.C.I.E.; Sir W. Lee-Warner, K.C.S.I.; Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir H. S. Barnes, K.C.S.I., K.C.V.O.; Sir F. O. Schuster, Bart.; Sir T. Morison, K.C.I.E.; General Sir C. C. Egerton, G.C.B., D.S.O.; Sir J. D. La Touche, K.C.S.I.; Saiyid Husain Bilgrami, C.S.I.; Krishna Gobinda Gupta, C.S.I.; Sir J. Thomson, K.C.S.I.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Sir T. Raleigh, K.C.S.I.

*Governor-General.*—The Right Hon. the Earl of Minto, P.C., G.M.S.I., G.C.M.G., G.M.I.E.

*Members of Council.*—General Viscount Kitchener of Khartoum, G.C.B., O.M., G.C.M.G. (extraordinary), Commander-in-Chief; Sir H. Erle Richards, K.C., K.C.S.I.; Sir H. Adamson, C.S.I.; J. O. Miller, C.S.I.; W. L. Harvey, C.I.E.; Sir G. Fleetwood Wilson, K.C.B.

*Lieutenant-Governors.*—Bengal, Sir E. N. Baker, K.C.S.I.; Eastern Bengal and Assam, Sir L. Hare, K.C.S.I., C.I.E.; United Provinces of Agra and Oudh, Sir J. P. Hewett, K.C.S.I., C.I.E.; Punjab, Sir L. Dane, K.C.S.I.; Burma, Sir H. T. White, K.C.I.E.

*Chief Commissioners.*—Central Provinces, R. H. Craddock, C.S.I.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.

*Governor of Madras.*—Hon. Sir A. Lawley, G.C.I.E., K.C.M.G.

*Members of Council.*—Sir G. S. Forbes, K.C.S.I.; M. Hammick, C S.I., C.I.E.

*Governor of Bombay.*—Sir G. S. Clarke, G.C.M.G., G.C.I.E.

*Members of Council.*—Sir J. W. P. Muir-Mackenzie, K.C.S.I.; J. L. Jenkins, C.S.I.

Constitutional reforms.

The year under review was a memorable one, in that the important proposals for constitutional reform which had been under discussion since 1906 bore fruit in the Indian Councils Act, 1909. A summary of the main provisions of this Act, which aims at giving to Indians a larger political representation and wider opportunities of expressing their views on administrative matters, will be found below under the head of Legislation.

Decentralization.

The Report of the Royal Commission on Decentralization, referred to in last year's Statement, was still under the consideration of the Government of India at the end of 1908–9.

Indian students.

An important step was taken during the year for the amelioration of the position of Indian students in England by the establishment of a Bureau of Information and an Advisory Committee. The head of the Bureau, styled the Educational Adviser to Indian Students, is also Secretary to the Advisory Committee, which is composed of well-known Indian and Anglo-Indian gentlemen; and the Educational Adviser and the Committee work in close relation with one another. The functions of the former are to answer inquiries regarding educational facilities, to keep a list of lodgings and boarding-houses suitable for Indian students, and of private families willing to receive them, to furnish students with references, to bring special cases to the notice of the Advisory Committee, and generally to give all possible assistance to students in this country and to their parents in India. Local committees have been appointed in the various provinces in India to be in direct communication with the Educational Adviser, so as to enable him to obtain trustworthy information regarding the needs of students who have come or are about to come to this country.

ADMINISTRATION.

The Advisory Committee is designed to stand, so far as possible, *in loco parentis* to students whose parents are unable themselves to supervise their education, and in particular to assist students in social matters. It will be available for consultation by students or their parents, by the Educational Adviser and by the Secretary of State, and will bring to the latter's notice any matter in which it considers that action is desirable on behalf of the students.

The Secretary of State, while not desiring to exercise any official control, is also subsidising a scheme for the establishment of a club, in which existing societies are uniting their activities for the promotion of social intercourse among Indian students and their friends and well-wishers in England.

Military Supply Department.

An important administrative change was effected by the abolition of the Military Supply Department of the Government of India; *vide* Chapter XVII.

Medical profession.

With a view to promoting the growth of an independent medical profession in India, it was decided to restrict the increase of the civil side of the Indian Medical Service and to make a strong effort in the direction of gradually extending the employment of civil medical practitioners recruited in India.

LEGISLATION.

## LEGISLATION.

### I.—In England.

*The Indian Councils Act*, 1909 (9 Edward 7. c. 4).—The effect of this measure, which was the subject of much discussion in India previous to its introduction and during its passage through Parliament, may be briefly summarised as follows:—(1) The principle of election of members of Legislative Councils, in partial substitution for nomination, received legal sanction; previously, all members had been nominated by the Head of the Government, although a certain number of nominations had been made on the "recommendation" of bodies defined by the rules made under the Act of 1892; (2) the number of members of the various Legislative Councils was greatly enlarged; (3) the number of members of the Executive Councils of Madras and Bombay, heretofore two, was increased to such number, not exceeding four, as the Secretary of State in Council may from time to time direct; (4) power was taken for the Governor-General in Council, with the approval of the Secretary of State in Council, to create an Executive Council, consisting of not more than four members, to assist the Lieutenant-Governor of Bengal in the Government of the province; (5) power was taken to create a similar Executive Council in any other province under a Lieutenant-Governor, provided that in the case of such a Council a draft of the proposed proclamation creating it must be laid before Parliament for not less than sixty days during the Session, and if, before the expiration of that time, an address is presented to His Majesty by either House against the draft, no further proceedings thereon can be taken; (6) authority was given to frame rules for the discussion, at any meeting of the Legislative Councils, of the Annual Financial Statement of the Empire or Province, and of any matter of general public interest; and power was taken to permit resolutions to be proposed, and the Council to be divided in respect of any such discussion; (7) power was given to the Governor-General in Council to frame, subject to the approval of the Secretary of State in Council, regulations for carrying the Act into effect; and the Act prescribed that all proclamations, regulations and rules made under it should lie before Parliament after being made. The rules and regulations were under consideration at the close of the year under review.

### II.—In India.

Between the 1st April 1908 and the 31st March 1909 the following enactments received the assent of the Governor-General of India:—Eighteen Acts passed by the Council of the Governor-General for making laws and regulations, five by the Legislative Council of Madras, four by that of Bombay, eight by that of Bengal, one by that of Eastern Bengal and Assam, one by that of the United Provinces of Agra and Oudh, six by that of Burma. Four regulations were passed by the Governor-General in Council on the recommendation of the local governments of the provinces affected by them, in accordance with the provisions of 33 Vict. c. 33.

The following are the measures referred to :— LEGISLATION.

*Acts of the Governor-General's Council.*

*The Explosive Substances Act (No. VI. of* 1908) is framed on the lines of the English *Explosive Substances Act*, 1883, which was enacted for the express purpose of dealing with anarchist crimes. It provides for the punishment of any person who causes an explosion likely to endanger life or property, or who attempts to cause such an explosion, or makes or has in his possession any explosive substance with intent to endanger life or property. It further makes the manufacture or possession of explosive substances for any other than a lawful object a substantive offence, and throws on the person who makes or is in possession of any explosive substance the onus of proving that the making or possession was lawful. It also provides adequately for the punishment both of principals and accessories. India.

*The Newspapers (Incitements to Offences) Act (No. VII. of* 1908) was passed to make better provision for the prevention of incitements to criminal outrages in newspapers. The scope of the Act is confined to incitements to murder, to offences under the Explosive Substances Act, 1908, and to acts of violence. It gives power in such cases to confiscate the printing press used in the production of the newspaper, and to stop the lawful issue of the newspaper. The procedure adopted in the Act follows the general lines of that provided in the Code of Criminal Procedure for dealing with public nuisances, with the important addition that the final order of the magistrate directing the forfeiture of the press is appealable to the High Court within fifteen days. It is further provided that no action can be taken against a press save on the application of a local Government. When an order of forfeiture has been made by the magistrate, but only in that case, the local Government is empowered to annul the declaration made by the printer and publisher of the newspaper under the Press and Registration of Books Act, 1867, and thereafter neither that newspaper nor any other which is the same in substance can be published without a breach of the law.

*The Local Authorities Loan (Amendment) Act (No. VIII. of* 1908) enables certain local authorities to whom the Local Authorities Act, 1904, applies, to give promissory notes as security for short loans.

*The Indian Limitation Act (No. IX. of* 1908) was designed mainly to alleviate the hardship which has been caused to the holders of mortgages of immovable property, in forms other than what is known as the English form, over a large part of India, by reason of a recent decision of the Judicial Committee of the Privy Council, which, overruling the decisions of the High Courts of Bombay, Madras, and Allahabad, advised that the period of limitation prescribed by the Indian Limitation Act, 1877, for suits to enforce payment of money secured by such mortgages, is twelve years as provided in Article 132 of the Second Schedule of that Act, and not the longer period of sixty years prescribed by Article 147. The effect of the decision of the Privy Council has been that in the territories within the jurisdiction of the above High Courts a number of suits for the enforcement of mortgages, which, before the decision of the Privy Council, would have been within time, have been and must be dismissed by the courts on the ground that they are barred by limitation, and that the claims under a still larger number of mortgages have become unenforceable owing to the construction thus put on the Statute of Limitation. The Act allows holders of such mortgages a period of two years within which to bring their suits, provided that the whole period from the date when the money secured by the mortgage became due does not exceed sixty years in all.

*The Indian Salt Duties Act (No. X. of* 1908) allows any local Government to adopt within its territories the credit system for the payment of duty on salt which already prevails in Madras and Bombay. By this system salt is issued to merchants without requiring them to make immediate payment of the duty; the precedent being that they execute a bond and deposit securities and that their accounts are made up and settled periodically.

*The Assam Labour and Emigration (Amendment) Act (No. XI. of* 1908). In view of the proposed withdrawal from the districts of the Surma Valley and from the districts of Kamrup and Goalpara of the chief provisions of the Assam Labour and Emigration Act, 1901 (VI. of 1901), relating to labour districts, the procedure prescribed by the Act for the recruitment of labourers is amended so as to dispense with contracts in the case of emigrants proceeding to these districts. Provision is at the same time made for giving a trial to the system of free recruitment by garden-sardars.

LEGISLATION.

*The Indian Emigration (Amendment) Act (No. XII. of* 1908) defines the term "India" so as to exclude from its meaning all foreign settlements in that country, and thus exempts native subjects of foreign Powers from the provisions of the Indian Emigration Act, 1883.

*The Central Provinces Financial Commissioner's Act (No. XIII. of* 1908) provides for the creation of the appointment of Financial Commissioner for the Central Province and for the assignment of powers to that appointment.

*The Indian Criminal Law Amendment (Act No. XIV. of* 1908) was designed to provide for the more speedy trial of anarchical offences, and for the suppression of associations dangerous to the public peace. Part I. provides for the trial of certain offences by a bench of three judges of the High Court. In the procedure there is no formal commitment, but the case is prepared for trial by an *ex-parte* inquiry before a magistrate, and the trial is without jury. Two special provisions are made applicable to cases to which the Act will apply. The first is that bail shall be refused so long as there is reasonable ground for further inquiry into the guilt of the accused. The second is that the evidence of witnesses who have been examined by the magistrate may be admitted at the trial if the witness is dead or cannot be produced and the High Court has reason to believe that his death or absence was caused in the interests of the accused.

Part II. provides for the suppression of unlawful associations. Such persons as are members of or in any way assist an association which encourages or aids the commitment of acts of violence or intimidation, or of which the members habitually commit such acts, are made liable to punishment, and a severer punishment is provided for persons managing or promoting such associations. Further, the Governor-General in Council is empowered to declare certain associations to be unlawful, and the same penalties are provided for persons who after this declaration maintain their connection with them.

The Act extends in the first instance to the provinces of Bengal and Eastern Bengal and Assam, and the Governor-Governor in Council is empowered to extend it to other provinces.

*The Indian Ports Act (No. XV. of* 1908) is a consolidating Act, to incorporate in one Act the provisions of the Indian Port Act, 1889, and the five subsequent Acts by which it was amended.

*The Indian Registration Act (No. XVI. of* 1908) is also a consolidating measure, incorporating in one Act the provisions of seven Acts relating to the registration of documents.

*The Indian Emigration Act (No. XVII. of* 1908) similarly consolidates the existing law relating to emigration from India, thus taking the place of the Indian Emigration Act, 1883, and the various amending Acts which followed it.

*The Indian Merchant Shipping (Amendment) Act (No. XVIII. of* 1908) makes certain amendments in the Indian Merchant Shipping Act, 1880, the chief of which widens the application of the provisions of that Act to foreign vessels.

*The Indian Steamship Law Amendment Act (No. I. of* 1909). The object of this Act is to make provision for the survey of vessels propelled by agencies other than steam, and for the grant of certificates to engineers, to put British and foreign ships on a footing of equality in the matter of the carriage of passengers and the holding of certificates of survey under the Indian Steamships Act, 1884, to bring vessels partially surveyed in British ports into substantially the same position as those similarly surveyed in foreign ports, and to facilitate the exercise of the powers conferred by that Act in respect of the grant of certificates of survey to ships surveyed in foreign ports.

*The Indian Paper Currency (Amendment) Act (No. II. of* 1909) makes the universal five-rupee note legal tender throughout all British India, including Burma.

*The Presidency-towns Insolvency Act (No. III. of* 1909) supplies the long-needed revision of legislation on the subject of insolvency in the Presidency towns and Rangoon. The Act follows the main principles of the English law, but introduces simplifications required to meet the special conditions of India. It continues the existing protection for debtors, but, at the same time, sets up a machinery by which the whole of the assets of an insolvent should be secured for the benefit of the creditors.

*The Whipping Act (No. IV. of* 1909) restricts the classes of offences for which the punishment of whipping may be inflicted, and limits the number of officers who may be empowered to award it.

*The Amending (Army) Act (No. V. of 1909).* The principal object of this Act is to effect certain amendments in the Military Lunatics Act, 1877, the Cantonments (House Accommodation) Act, 1902, and the Indian Works of Defence Act, 1903, which are necessitated by the abolition of commands and the reorganisation of the Army in India. LEGISLATION.

## ACTS OF THE PROVINCIAL LEGISLATIVE COUNCILS.

*The Madras Estates Land Act (No. I of 1908)* amends the Act of 1865 in respect to the procedure to be taken by landholders for the recovery of rent from their tenants, and definitely declares the substantive and relative rights of landholders, and their tenants or ryots; and the *Madras Estates Land Act Amendment Act (No. 4 of 1909)* clears up certain doubts that had arisen regarding the Act of 1908, and removes drafting inconsistencies. Madras.

*The Madras Revenue Recovery (Amendment) Act (No. 1 of 1909)*, and the *Madras District Police and Towns Nuisances Acts (Amendment) Act (No. 3 of 1909)*, makes certain minor amendments in previous law; and Madras Act 2 of 1909 repeals the *Labour and Emigration Act* of 1866, which had fallen into desuetude.

*The Government Occupants (Sind) Amendment Act (No. 1 of 1908)* improves the system of registration of occupancies of land. Bombay.

*The City of Bombay Improvement (Amendment) Act (No. 2 of 1908)* makes certain amendments of the provisions of the Act of 1898 regarding the acquisition of land for the Board.

*The Criminal Tribes (Validation) Act (No. 1 of 1909)* validates the action of the Commissioner in Sind in ordering the removal under section 14 of the Criminal Tribes Act, 1871, of certain members of the criminal tribe, known as Hurs, from the settlements to which they were originally removed under section 14 of the Act to other settlements in adjoining tálukás.

*The Karachi Port Trust (Amendment) Act (No. 2 of 1909)* places the Karachi Port Trust on the same footing as other large Port Trusts in India in regard to the raising of loans.

*The Calcutta Port (Amendment) Act (No. 1 of 1908)* authorises the Vice-Chairman of the Commissioners for the Port of Calcutta to have his signature reproduced by mechanical process for the purpose of signing debenture coupons. Bengal.

*The Repealing Act (No. 2 of 1908)* repeals the Central Provinces Laws Act, 1879, and thereby brings the Sambalpur district into line with the other districts of Bengal in regard to the recording *in extenso* of evidence in the Civil Courts.

*The Puri Lodging-house (Amendment) Act (No. 3 of 1908)* provides greater safeguards against the overcrowding of lodging-houses at Puri.

*The Bengal Repealing Act (No. 4 of 1908)* was necessitated by the orders of the Government of India relieving the Howrah Municipality of all liabilities on account of police charges.

*The Bengal Local Self-government (Amendment) Act (No. 5 of 1908)* makes various amendments in the Act of 1885 for the purpose of delegating certain powers to Commissioners, of legalising certain expenditure from District Funds, &c.

*The Chota Nagpur Tenancy Act (No. 6 of 1908)* consolidates, simplifies, and re-arranges the greater part of the statute law relating to landlord and tenant in Chota Nagpur.

*The Indian Lunatic Asylums (Amendment) Act (No. 1 of 1909)* extends the application of section 17 (B) of the Act of 1858 to asylums situated anywhere outside Calcutta in the province of Bengal.

*The Bengal Court of Wards (Amendment) Act (No. 2 of 1909)* makes a small amendment in the Act of 1879.

*The Chota Nagpur Encumbered Estates Amendment Act (No. 3 of 1909).* The object of this Act is so to amend the Chota Nagpur Encumbered Estates Act (VI. of 1876), as to impose further checks on the reckless expenditure prevalent among the landholders in the Chota Nagpur Division; to give increased facilities to managers appointed under the Act for the proper management of encumbered estates; and to secure estates which, by the operation of the Act, have been restored to solvency from further mismanagement by the proprietors.

LEGISLATION.

Eastern Bengal and Assam.

*The Eastern Bengal and Assam Tenancy (Amendment) Act (No. 1 of 1908).* The chief objects of this Act are (1) to give landlords greater facilities for the collection of their rents, and at the same time to discourage their evading the provisions of the Bengal Tenancy Act, 1885, with regard to the enhancement of rent by entering into unfair, inequitable, and collusive compromises with their tenants; (2) to give power to Government to distinguish between good and bad landlords, and to take steps in the case of the latter for the reduction of rents, when they appear to have been so unduly enhanced as to be oppressive to the cultivators of the soil.

United Provinces.

*The United Provinces Waterworks (Amendment) Act (No. 1 of 1908)* amends the Act of 1891 in various respects in which it has been found defective.

Burma.

*The Rangoon Victoria Memorial Act (No. 1 of 1908)* makes legal provision for the vesting, maintenance, and management of the Victoria Memorial Park and Zoological Gardens at Rangoon.

*The Burma Municipal Act Amendment Act (No. 2 of 1908)* makes various minor amendments in the Act of 1898.

*The Burma Towns Act Amendment Act (No. 3 of 1908)* provides for the regulation by licences of billiard saloons and similar places of public resort.

*The Rangoon Port (Amendment) Act (No. 4 of 1908)* places the Commissioners of the Port of Rangoon on a similar footing to the Commissioners of the Ports of Calcutta and Bombay as regards the issue of debentures.

*The British Burma Pilots Act Amendment Act (No. 5 of 1908)* makes various amendments in the Act of 1883.

*The Burma Prohibition of Inoculation and Licensing of Vaccinators Act (No. 6 of 1908)* extends the powers given to Government by the provisions of the Vaccination Act, 1880.

## REGULATIONS.

Regulations

*The Coorg Land and Revenue (Amendment) Regulation (No. 1 of 1908)* makes a small amendment in the Regulation of 1899.

*The Perim Pearl Fishery Regulation (No. 2 of 1908)* provides for the proper management and protection of the pearl fisheries in the territorial waters of Perim and the safeguarding of the Government rights to them from outside fishermen.

*The Sonthal Parganas Settlement (Amendment) Regulation (No. 3 of 1908).* The most important section of this measure prohibits the transfer of holdings, and thereby gives legal effect to the policy which has for some time been executively enforced.

*The Andaman and Nicobar Islands Regulation (No. 4 of 1908)* provides for the extension of the new Code of Civil Procedure to the Andaman and Nicobar Islands.

# CHAPTER II.*

## JUSTICE AND POLICE.

| | |
|---|---|
| CIVIL JUSTICE. | CRIMINAL JUSTICE. |
| CRIME AND POLICE. | JAILS. |

*(For further details see Statistical Abstract for British India, Tables 24 to 42.)*

### CIVIL JUSTICE.

CIVIL JUSTICE.

In Bengal both the number of civil suits instituted and the number disposed of decreased, so that there was an increase in the number of cases pending at the end of the year. The most marked feature of the year was a further decline in the number of original suits instituted in the Subordinate Civil Courts. There was an improvement in the average duration of contested cases. Bengal.

The rise of 4,000 cases in the pending file in Eastern Bengal and Assam was due to the very large increase in the number of suits instituted during the year; for the number of disposals showed a marked increase. Duration results were unfavourable, exhibiting an increase in nearly all classes of courts. Eastern Bengal and Assam.

For legislative purposes the North-Western Provinces and Oudh are united, but inasmuch as Oudh is not subject to the High Court of the North-Western Provinces, the judicial statistics of the two are given separately. North-Western Provinces.

There was a further increase in the number of suits instituted in the North-Western Provinces, the number of cases for disposal being about 6 per cent. more than in the preceding year; while the number disposed of increased in about the same ratio. The average duration of cases remained the same.

In Oudh, on the other hand, the decrease of 1907 in the number of suits continued in 1908; the number of disposals also fell off, and the pending file increased. The average duration of cases rose in both contested and uncontested cases. Oudh.

Litigation increased during the year in all divisions of the Central Provinces and in both districts of Berar. The pending file increased by nearly 3,000 cases, but it represents a slightly lower percentage of the total number of suits than in 1907. In the matter of duration of cases the Central Provinces returned worse results than in 1907, while Berar showed considerable improvement. Central Provinces and Berar.

The number of institutions of civil suits in the Punjab rose by over 25,000. The disposals of the Chief Court kept pace with them, but there was a falling off in the output of Divisional Judges; and consequently the pending file increased. There was no change in the duration of cases, contested or uncontested. Punjab.

There was again a considerable fall in the total number of civil cases decided during the year in Bombay. The balance which remained pending was larger than at the end of 1907, and amounted to 21 per cent. of the total number for disposal. The average duration of contested suits fell from 175 to 167 days; that of uncontested suits remaining about the same. Bombay.

The increase in litigation in the Madras Presidency led to the creation of a temporary Subordinate Judge's Court in Madura, and of five new District Munsifs' Courts—three permanent and two temporary. There was a decrease in the total number of suits instituted in all the courts of the Presidency, and this decrease also occurred in the number of suits instituted in the village courts. The figures show a very satisfactory increase in the number of cases tried before village bench courts. Suits instituted in Revenue Courts increased, but there was a regrettable falling off in the number of disposals. Though fewer original and small cause suits were instituted in District Munsifs' Courts, the pending file at the end of 1908 was considerably larger than at the end of 1907. The increasing popularity and efficiency of the City Civil Court may be contrasted with the condition of business in the High Court, where seven judges working the whole year made little impression on the arrears. Madras.

* The period covered by this chapter is the year ending 31st December 1908.

CIVIL JUSTICE.

Burma. In Burma the decrease in the number of suits instituted in the Courts, which was marked in 1907, continued during the year under review, and was most noticeable in Lower Burma. There was an increase in the pending file in both Upper and Lower Burma, and the average duration of cases still remained high. The latter was due to the congestion of work in the two High Courts, though a fifth judge was appointed to the Chief Court of Lower Burma, and an additional judge to the Judicial Commissioners' Court of Upper Burma for part of the year.

North-West Frontier Province. There was a marked increase of litigation during the year in the North-West Frontier Province, and all previous records were passed, every district except Hazara sharing in the increase. But the increase in the number of disposals shows that the courts proved equal to the increased burden thrown upon them; the improvement in the disposal of execution work, especially in the Peshawar district, being a particularly satisfactory feature.

Coorg. The main feature presented by the statistics of civil suits in Coorg was again the increase in the number of suits and the decrease in the total value. The state of the pending file at the close of the year compared favourably with the figures for past years.

## CRIME AND POLICE.

CRIME AND POLICE.

Madras. The season was generally unfavourable, and scarcity prevailed almost throughout the Madras Presidency. The prices of food grains, excessive at the end of 1907, rose still higher in 1908; and, in consequence, there was a marked increase in crime. The total number of true cases of cognisable* crime rose from 47,500 to 50,047. The number of murders was 9 more than in 1907, and only 4 less than in 1906, the worst year on record. Dakaities and thefts increased by 26 and 1,166 respectively, but there was a slight falling off in the number of robberies. There were serious riots during the year at Tinnevelly and Tuticorin, in the suppression of which the police worked well. The disturbances were due to the inflammatory speeches of two seditious agitators, who were brought to justice. The results of detection were inferior to those in the previous year; but this must be attributed to the stage of transition through which the Police Department was still passing. The percentage of murders and dakaities detected fell to 20·5 and 19·3 respectively; the proportion of true cases detected from 32·4 to 30·9. The percentage of convictions to cases prosecuted by the police fell from 78·4 to 77. Property lost during the year was valued at £110,533, of which 27·3 per cent. was recovered.

The total sanctioned strength of the police was 25,481. Difficulty in recruiting was experienced in some districts, and there were some complaints as to the quality of the recruits. The conduct of the force continued good, and a large number of rewards were given. The number of casualties was 1,930, as against 2,264 in 1907. The proportion of illiterate constables was 10·9 per cent. The total cost increased by £56,470 to £466,445, mainly owing to progress made in reorganisation.

Bombay. In Bombay the total number of cognisable cases reported during the year rose to 33,646, there being increases under all heads of offences, except cattle theft. Investigation was refused by the police in 566 cases. Adding the cases pending from the previous year, and deducting cases in which investigation was refused and cases which were pending at the close of the year, orders were received on 33,229 cases, or 3,725 more than in 1907. The percentage of convictions to true cases disposed of showed a further regrettable falling off from 50·7 to 47·5. To this lack of success in detection the increase of crime during the year may, to some extent, be attributed. The value of property stolen during the year, in connection with cognisable crime, was estimated at £113,352, a large increase on the figures for 1907; but there was considerable improvement in regard to the recovery of stolen property, 45 per cent., as against 30·6 per cent. in 1907, being recovered.

The total strength of the police force in the Presidency was 22,798, an increase of 729, and the total cost £366,556, an increase of £15,147. Less difficulty was experienced in recruiting. The number of punishments rose from 2,100 to 2,480, of rewards from 3,159 to 5,180. A percentage of 54, practically the same as in the preceding year, were able to read and write. Resignations numbered 979, as against 1,139 in 1907. The health of the force was, owing to strain and exposure, not so good as in the preceding year. The year on the whole was a trying one for the police, and the unsatisfactory results indicated by the statistics given above must to

* Cognisable offences are those for which the police can arrest without a warrant.

a great extent be attributed to the special difficulties which the force had to encounter. CRIME AND POLICE.

The year under review was marked in Bengal by an outbreak of political crime of a very serious character. The police were called upon to deal with cases of murderous outrages with explosives and fire-arms and of dakaities with violence, and they were greatly hampered by the reluctance of the public to co-operate with them in the detection and prosecution of the offenders, many of whom belonged to the educated classes. A considerable measure of success was achieved by the Criminal Investigation Department, which is specially charged with the duty of dealing with organised crime; and a number of dangerous gangs were broken up. The success achieved in this direction is shown by the fact that of 405 persons prosecuted nearly 94 per cent. were convicted. As regards ordinary crime, there was an increase of 8 per cent. in the number of cognisable offences. The whole of this increase occurred under the heads of burglary and theft, and is to be attributed principally to the high price of food. Bengal.

About two-thirds of the scheme for the reorganization of the police had been completed by the end of the year; and general progress was made in smartness and efficiency. For this result the appointment of European armed inspectors and the improved instruction in drill at the Police Training College were largely responsible.

The famine, which lasted during the greater part of the year under review, naturally affected the returns of crime in the United Provinces. The volume of reported offences increased by 5·5 per cent. on the corresponding figure for 1907, and amounted to 195,687 cases. The results of investigations show an improvement on those of the previous year, as the percentage of convictions in police cases in which investigations were undertaken rose from 47·6 to 51·1, and that of persons convicted to those arrested from 76·9 to 80·8. The chief feature of the year was the large number of dakaities that were reported (832). This figure is 24 per cent. higher than the number reported in 1907, and is the largest ever recorded. The number of true cases of murder (555) was the highest for six years; and there were increases in the number of robberies, burglaries, ordinary thefts, and cattle thefts. The relations between the police and the neighbouring native states continued to be excellent. There was an improvement in the way in which village headmen discharged their duties, cases reported by them increasing from 4,705 to 5,015. United Provinces.

Over 3,000 men were added to the force during the year owing to the conversion of municipal police into constabulary. The number of punishments was exceptionally heavy, the number of men punished by the courts rising from 86 to 165. Difficulties were experienced in several districts in obtaining recruits. The work of the Criminal Investigation Department was very heavy during the year, and its activities met with signal success, especially in dealing with dakaities.

There was a marked increase in the more serious classes of crime in the Punjab during the year under review. True cases of murder were 71 in excess of the totals of 1907. Dakaities numbered 74, an increase of five only on the figures for 1907, but the number is 20 in excess of the provincial average for the six years ending 1907. Burglaries increased from 12,087 to 13,700; and cases of cattle theft by 299. In the disposal of police cases, the percentage of convictions to trials (70) and of convictions to the cases investigated (33) were the same as in the previous year. The investigation work of the force showed improvement. Discipline was good, and in none of the three cases in which inquiry was held by Government were the charges of misconduct brought home to the police. Measures were taken during the year to counteract the tendency to follow the practice of securing a confession to support the theory of the prosecution. Good work was done by the Criminal Investigation Department, and the relations between the provincial force and the police of native states were most satisfactory. Punjab.

It is not proposed to give detailed figures for the province of Eastern Bengal and Assam for 1908, as ordinary crime, both cognisable and non-cognisable, remained about stationary. There was, however, an increase in the number of reported dakaities, especially on the rivers, and a deplorable feature of the year was the commission of serious crime by young men of the well-to-do classes, organised into predatory gangs for the purpose. This included one case of murder and four of dakaiti. There was a striking decrease in the number of cases of rioting in the Bakarganj district as the result of settlement operations, and settlement operations are being introduced elsewhere. There was a slight increase in the proportion of Eastern Bengal and Assam.

CRIME AND POLICE. convictions to cases tried. The year was a trying one to the police, owing to the prevalence of political agitation. The work of the force was good, but its numbers are still inadequate, and proposals are on foot for strengthening both the superior and the subordinate branches. Recruitment is difficult in the province, and there was an increase in the number of casualties, mainly due to resignations. A constables' training school was started at Silchar.

Central Provinces and Berar. In the Central Provinces and Berar there was an increase in the total volume of crime, which may be attributed in part to the failure of crops in the north of the Provinces, and the consequent general high range of prices; while the political excitement of the year roused a spirit of lawlessness in Berar and the Mahratta districts. The increase was distributed over all classes of crime, and is greatest in the case of offences against property. The number of murders was the highest on record since the famine of 1900, and there was a considerable increase in the number of rioting cases, especially in Berar. Dakaities increased, but the gangs which were responsible for most of them were at any rate partially broken up during the year. Some progress was made in the introduction of Police Commission reforms, and there were indications of improvement in the standard of police work. Reporting was more complete, greater detective ability was shown, and there was less resort to the time-honoured practice of securing confessions from supposed culprits. Political disturbances were promptly suppressed. The Department worked short-handed during the year, and in view of the trying conditions its conduct was most satisfactory.

Burma. The outstanding fact of the year under review in Burma was a substantial increase of crime, while the proportion of success achieved in the detection of criminals and the recovery of stolen property remained stationary. The total number of true cases of real crime dealt with increased by nearly 1,000, and the increase was mainly composed of the most serious forms of crime. Murders, robberies, dakaities, house-breaking all increased, the only compensation being a slight improvement in the number of cattle thefts. Generally speaking, the measure of success achieved in dealing with the increased volume of crime remained unchanged, the percentage of cases investigated to cases convicted being the same as in the previous year. The relations of the police with village officials continued to be thoroughly satisfactory, and the assistance rendered by headmen in the detection of crime and the arrest of offenders was of the greatest value. The actual strength of the force was 111 officers and 753 men below sanctioned strength. The conduct of the men, as evidenced by punishments and rewards, was normal. There was no alteration in the strength of the military police; their discipline was, on the whole, good, and their relations with the people satisfactory.

North-West Frontier Province. The year under review in the North-West Frontier Province showed a great increase in violent crime, to be attributed to the unsettled state of the border and to the high prices which ruled throughout the year. The number of dakaities reported was more than double that of 1907. The Criminal Investigation Department was still in a state of development, but the section of it which dealt with the traffic in arms met with considerable success. The percentage of cases convicted to cases tried fell from 78 to 76, and there was a considerable falling off in the percentage of property recovered to property stolen, due to the large amount of property looted by trans-border raiders. All the reforms sanctioned in connection with police reorganisation have now been given effect to in the Province, but in spite of the increased rates of pay there was a disappointing increase of resignations. There were more punishments than in 1907, and the education of the force showed no improvement, but measures for the instruction of the men in reading and writing were introduced during the year.

Coorg. The year was not an eventful one in Coorg. The number of cognisable offences and the percentage of convictions were normal; and two noteworthy dakaities constituted the really serious crime. The introduction of reform was practically completed. There was an increase in the proportion of literate constables, and the comparatively small number of punishments points to the maintenance of departmental discipline during the year.

## CRIMINAL JUSTICE.

CRIMINAL JUSTICE.

Madras. In Madras, there was an increase in the number of offences under the Indian Penal Code reported during the year, but this was more than counterbalanced by a decrease

in the number reported under special and local laws. There was a marked improvement in the percentage of convictions in both classes of cases. The work in Sessions Courts increased to such an extent that three additional judges were appointed, two being appointed in the Tinnevelly division, where, owing to the riot and sedition cases, the work was unusually heavy. The High Court confirmed 53 out of the 80 sentences of death passed by Sessions Courts, and dismissed 85 per cent. of the total number of appeals sent up. CRIMINAL JUSTICE.

The number of offences reported and brought to trial in Bombay was again less than in preceding year, considerably less than half of the offences returned as true falling under the Indian Penal Code. Exactly half of the total number of persons brought to trial were acquitted or discharged, or about the same proportion as in the preceding year. Sentences of imprisonment were more numerous, fewer fines were inflicted, and there was a decrease in the number of whippings. Proceedings in appeal resulted in a reversal of the sentence in 17 per cent. of the cases. Bombay.

There was a general increase in the work of criminal justice in Bengal during the year. The most noteworthy feature was the increase in the number of offences against the State. In 1908 there were 57 persons under trial for offences of this kind, as against 13 in 1907. Of this number 7 were convicted, 9 acquitted or discharged, 2 were hanged for the murder of the approver Norendra Nath Goswami, and 39 remained under trial at the close of the year. In addition to these cases under the Indian Penal Code, 29 persons were under trial in Midnapur under the Explosive Substances Act (VI. of 1908), of whom 26 were discharged and 3 remained under trial at the close of the year. Bengal.

In Calcutta one person was prosecuted under the Newspapers (Incitements to Offences) Act (VII. of 1908), and was convicted, while there were 117 prosecutions under the Printing Press Act, of which 107 resulted in conviction.

In Eastern Bengal and Assam also the number of offences against the State was one of the noticeable features of the year. Of 10 persons under trial for such offences, 2 were convicted, 1 was acquitted or discharged, and 7 remained under trial at the end of the year. Twenty persons, against 3 in 1907, were proceeded against under section 108 of the Code of Criminal Procedure for disseminating seditious matter. Generally, there was a small increase in the total number of criminal cases, and a decrease in the number of cases disposed of by the Courts of first instance. Appellate work increased in Courts of Sessions, but decreased in the High Court. Eastern Bengal and Assam.

The figures for reported crime for the Punjab were the highest of any year, except 1906, since the Province was constituted within its present boundaries. Scarcity conditions may be held to account for most of the increase, but in certain favoured tracts, such as the Chenab Colony, prosperity seemed to stimulate the litigious tendencies of the people. There was an improvement in the percentage of convictions. The capital sentence was confirmed by the Chief Court in 58, and commuted in 11, cases. There was a considerable decrease in the number of whippings inflicted. Punjab.

The number of offences in the North-West Frontier Province during the year was the highest on record since the formation of the Province. The main cause was undoubtedly the unsettled state of the border, but continued high prices also accounted for the increase in ordinary thefts. The percentage of convictions to offences brought to trial was greater than in previous years. A change, which promises to be successful, was made in the composition of the Council of Elders, periodical large sessions being held instead of a few men being appointed in each individual case. North-West Frontier Province.

In the United Provinces there was a slight decrease in criminal trials during the year, a rise in serious offences being more than counterbalanced by a general decline in offences against the person. The work in Sessions Courts, however, increased largely, as did also the number of serious punishments, including sentence of death and transportation. The duration of trials in the courts of magistrates rose slightly, both in Agra and Oudh, owing to pressure of famine work, which called magistrates away from their ordinary duties. Appellate work also showed an increase, particularly in Oudh. United Provinces of Agra and Oudh.

The number of criminal cases brought to trial in Coorg was more than 10 per cent. less than the average of the past five years, while the percentage of convictions remained comparatively high. The number of appeals decreased proportionately, and the number successful was small. Coorg.

CRIMINAL JUSTICE. Central Provinces and Berar.

In the Central Provinces there was a considerable increase in the total number of offences reported, mainly of offences under the Indian Penal Code. In four out of the five offences against the State the accused were editors of newspapers, of whom two apologised and two were acquitted, the others being convicted. The fifth political offence was the mutilation of the statute of Queen Victoria at Nagpur; the four accused persons were still under trial at the close of the year. There was general improvement in the percentage of convictions in Sessions cases. The appellate work of the Judicial Commissioners' Court increased considerably. There was an increase in the number of sentences of whipping, but the percentage of whipping to the number of cases in which it might have been inflicted fell from 40·4 to 38·9.

Burma.

There was an increase in the number of serious offences dealt with by the Courts in Burma during the year, the natural result of the increase in crime which has been noted in connection with the working of the police. There was, however, but little variation in the total volume of crime which was dealt with, and the statistics present no features worthy of special note.

JAILS.

## JAILS.

The variations of the jail population in the whole of India during the last five years are shown in the following table :—

| —— | 1908. | 1907. | 1906. | 1905. | 1904. |
|---|---|---|---|---|---|
| Jail population of all classes on 1st January - | 101,336 | 99,065 | 98,244 | 93,781 | 93,881 |
| Admissions during the year - - - | 520,377 | 459,288 | 480,098 | 464,660 | 436,569 |
| Aggregate - - - | 621,713 | 558,353 | 578,342 | 558,441 | 530,450 |
| Discharged during the year from all causes - | 517,930 | 457,012 | 479,280 | 460,202 | 436,668 |
| Jail population on 31st December - - | 103,783 | 101,341 | 99,062 | 98,239 | 93,782 |
| Convict population on 1st January - - | 89,457 | 89,035 | 88,344 | 85,034 | 85,209 |
| Admissions during the year - - - | 173,175 | 153,759 | 163,956 | 161,783 | 153,380 |
| Aggregate - - - | 262,632 | 242,794 | 252,300 | 246,817 | 238,589 |
| Released during the year - - - | 168,599 | 160,439 | 160,022 | 155,220 | 150,289 |
| Casualties, &c. - - - - | 3,629 | 2,893 | 3,246 | 3,245 | 3,260 |
| Convict population on 31st December - | 90,404 | 89,462 | 89,032 | 88,352 | 85,040 |

An increase in the number of prisoners admitted to jail in the course of the year occurred in all provinces except Burma, Eastern Bengal and Assam, and Coorg, and was most marked in the United Provinces and Bengal. The daily average number of prisoners rose by about 8,000. The increase in the number of persons convicted and imprisoned was common to all provinces, except Burma and Coorg.

Over one half of the total number of convicts received in jails during the year came from the classes engaged in agriculture or cognate pursuits. Nearly 150,000 were illiterate. The number of previously convicted prisoners increased by about 6,000, and there was an increase of about 100 in the number of youthful offenders. The following statistics show, in round figures, the nature and length of the sentences imposed during the year :—Not exceeding one month, 50,000 ; above one month and not exceeding six months, 65,000 ; above six months and not exceeding one year, 30,000 ; above one year and not exceeding five years, 21,000. The remainder were major sentences, viz. :—2,828 for terms above five and not exceeding ten years ; 193 for terms exceeding ten years ; 1,942 to transportation beyond seas ; and 645 to death.

The increase in the average daily strength was accompanied by an increase in the number of offences committed by convicts, and there was also an increase of about 5,000 in serious offences dealt with by major punishments. The figures for the different provinces are given in the following table :—

JAILS.

| Province. | 1908. | | | 1907. | | | 1906. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. |
| Madras - - - | 10,517 | 122 | 13,038 | 10,043 | 24 | 11,915 | 10,404 | 10 | 10,278 |
| Bombay - - - | 7,913 | 33 | 20,296 | 7,538 | 15 | 15,303 | 7,997 | 16 | 16,199 |
| Bengal - - - | 14,462 | 37 | 28,715 | 13,632 | 26 | 25,707 | 13,963 | 25 | 25,268 |
| United Provinces - - | 25,363 | 14 | 37,265 | 21,710 | 10 | 39,549 | 22,903 | 9 | 39,988 |
| Punjab - - - | 10,766 | 56 | 56,892 | 10,216 | 38 | 44,105 | 10,768 | 64 | 36,828 |
| Burma - - - | 13,164 | 22 | 40,878 | 13,009 | 21 | 38,463 | 12,606 | 17 | 42,092 |
| Eastern Bengal and Assam - | 6,884 | 44 | 6,954 | 7,173 | 41 | 7,247 | 6,733 | 53 | 8,292 |
| Central Provinces and Berar - | 3,536 | 16 | 9,975 | 2,945 | 26 | 9,609 | 3,062 | 23 | 9,405 |
| North-West Frontier Province | 1,040 | 2 | 1,371 | 960 | — | 1,401 | 1,091 | 1 | 1,539 |
| Coorg - - - - | 81 | — | 17 | 80 | 2 | 50 | 85 | — | 19 |
| | 93,726 | 346 | 215,401 | 87,306 | 203 | 193,349 | 86,612 | 218 | 189,928 |

The total number of corporal punishments showed a slight increase on the figures for the previous year. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 6,842 as compared with 4,953 in the preceding year.

Total expenditure rose from £492,815 to £579,075, and total cash earnings from £90,051 to £91,298; there was, consequently, an increase of £84,897 in the net cost to Government. Excluding Coorg, the provinces in which the average cost of maintenance was highest were Eastern Bengal and Assam, Bengal, and the Central Provinces.

In 1908 all the conditions influencing the health of prisoners were extraordinarily unfavourable. Bad spring crops, and, in the autumn, an epidemic of malarial fever delaying the harvest, led to high prices and a consequent increase in crime. Prisons were in many cases overcrowded, and prisoners on admission were often in a bad state of health. In spite, however, of all these adverse conditions the health of the prisoners remained fairly good, and although the death-rate (24·17 per thousand as against 18·51 in 1907) represents more than a check in the steady fall that has been taking place in recent years, it would have been considered a low rate 10 years ago. The number of cases of malaria showed a still further falling-off, and considerable success attended anti-malarial measures, especially the prophylactic use of quinine. The most common causes of death were dysentery, tubercle of the lungs and pneumonia.

Penal Settlement, Port Blair.

*Penal Settlement at Port Blair.*—The convict population of the Andamans at the end of the year 1908-9 was 13,305, being 930 less than at the end of the previous year; the decrease being due, among other causes, to the large number of convicts (437) released in commemoration of the 50th anniversary of the assumption of the Government of India by the Crown. The number of convicts received from India and Burma during the year was 626, as against 754 in 1907–8. There were 55 escapes, and 31 recaptures; the corresponding figures for the preceding year were 46 and 35. There was an increase in the percentage of offences, confined to male convicts, and the number of corporal punishments rose from 23 to 36. A proposal to enlarge the cellular jail was sanctioned during the year; its working during the year, under the improved procedure referred to in last year's Report, was satisfactory. The net cost of the Settlement was £116,379, and the net cost of each convict about £8, against £100,863 and about £7, respectively, in the previous year. The estimated value of jail manufactures rose from £27,354 to £32,876. The outturn of cocoanut oil was nearly doubled. Owing to the abnormal rainfall of 1907 the season's crop of paddy was largely destroyed; and no local rice was packed for issue to convicts during the year under review. The strength of the police force was increased, and was during the year 725, or 178 below sanctioned strength. Discipline was on the whole good. There were seven schools in the Settlement during the year, the same number as in the previous year.

# CHAPTER III.

Finance.

## FINANCE.


| | |
|---|---|
| Form of Accounts. | Home Charges. |
| Gross Revenue and Expenditure. | Capital Outlay on Public Works. |
| Net Revenue and Expenditure. | Debt. |
| Cash Balances. | Currency and Exchange. |
| Provincial Finance. | Banks. |


(*For further details, see Statistical Abstract for British India, Tables* 44 *to* 89 *and* 97.)

### Form of Accounts.

Form of accounts.

The accounts of the Government of India show the transactions in India in rupees: the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the facts that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee, and that the Government is under obligations to carry out certain transactions with railway companies at fixed rates differing from the rate of sixteenpence to the rupee, are included in a single line under the head of Exchange.

### Gross Revenue and Expenditure.

Gross Revenue and Expenditure.

The Gross Revenue and Expenditure of British India in 1907–8 and 1908–9 were as follows:—

| | 1907–8. | | 1908–9. |
|---|---|---|---|
| | £ | | £ |
| Revenue - - - - - | 71,003,275 | | 69,761,535 |
| Expenditure - - - - - | 70,697,229 | | 73,499,245 |
| | Surplus - £306,046 | Deficit - | £3,737,710 |

In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, with the one exception that the working expenses of railways are treated not as expenditure but as a deduction from Revenue. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which the interest charges as well as the working expenses of the Railways, the interest charges and working expenses of Irrigation Works, the cost of the cultivation and manufacture of Opium, and the charges against other revenue-earning departments are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

Net Revenue and Expenditure.

## NET REVENUE.

| | 1907-8. | | 1908-9. | | Increase (+) or *Decrease* (−) | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Land Revenue, &c. : | | | | | | |
| Land Revenue | 17,982,592 | | 19,005,038 | | +1,022,446 | |
| Forest | 1,727,701 | | 1,691,865 | | − *35,836* | |
| Tributes from Native States | 389,366 | | 387,557 | | − *1,809* | |
| | | 20,099,659 | | 21,084,460 | | + 984,801 |
| Opium : Net Receipts | — | 3,571,948 | — | 4,645,113 | — | +1,073,165 |
| Taxation : | | | | | | |
| Salt | 3,072,378 | | 3,008,703 | | − *63,675* | |
| Stamps | 4,212,194 | | 4,293,955 | | + 81,761 | |
| Excise | 6,163,111 | | 6,313,779 | | + 150,668 | |
| Provincial Rates | 524,756 | | 532,976 | | + 8,220 | |
| Customs | 4,895,771 | | 4,725,083 | | − *170,688* | |
| Income Tax | 1,495,853 | | 1,544,576 | | + 48,724 | |
| Registration | 414,068 | | 429,975 | | + 15,906 | |
| | | 20,778,131 | | 20,849,047 | | + 70,916 |
| Commercial Undertakings : | | | | | | |
| Post Office | 51,279 | | − *71,133* | | − *122,412* | |
| Telegraph | − *77,650* | | − *49,976* | | + 27,674 | |
| Railways | 1,563,002 | | *−1,242,250* | | *−2,805,252* | |
| Irrigation | 646,475 | | 608,823 | | − *37,652* | |
| | | 2,183,106 | | − 754,536 | | *−2,937,642* |
| Mint | — | 279,017 | — | − 89,475 | — | − *368,492* |
| Exchange | — | 94,511 | — | − 34,437 | — | − *128,948* |
| Total Net Revenue £ | — | 47,006,372 | — | 45,700,172 | — | *−1,306,200* |

## NET EXPENDITURE.

| | 1907-8. | | 1908-9. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Debt Services (excluding amounts charged under Railway Revenue Account and Irrigation). | — | 855,087 | — | 979,507 | — | + 124,420 |
| Military Services : | | | | | | |
| Army | 17,625,054 | | 18,314,327 | | + 689,273 | |
| Marine | 397,338 | | 351,509 | | − *45,829* | |
| Military Works and Special Defence Works. | 1,225,962 | | 937,152 | | − *288,810* | |
| | | 19,248,354 | | 19,602,988 | | + 354,634 |
| Collection of Revenue | — | 5,729,823 | — | 6,026,572 | — | + 296,749 |
| Civil Services : | | | | | | |
| Civil Departments | 11,999,649 | | 13,342,704 | | +1,343,055 | |
| Miscellaneous Civil Charges | 4,155,959 | | 4,299,871 | | + 143,912 | |
| Civil Works (including Railways charged to Provincial or Local Revenues). | 4,436,577 | | 4,208,404 | | − *228,173* | |
| | | 20,592,185 | | 21,850,979 | | +1,258,794 |
| Famine Relief and Insurance | — | 1,296,063 | — | 1,645,179 | — | + 349,116 |
| Provincial Adjustments : | | | | | | |
| 1. Charge against Revenue of the year arising from increase of Provincial Balances. | — | — | — | — | — | + 353,843 |
| 2. Diminution of the Charge against Revenue of the year, owing to Expenditure being met from Provincial Balances. | — | *−1,021,186* | — | − *667,343* | — | |
| Total Net Expenditure charged against Revenue. | — | 46,700,326 | — | 49,437,882 | — | +2,737,556 |
| Surplus (+) or Deficit (−) | — | + 306,046 | — | *−3,737,710* | — | *−4,043,756* |

Thus there was in 1908-9, as compared with the previous year, a decrease of net revenue of £1,306,200 and an increase in net expenditure of £2,737,556. Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government of India and in the Explanatory Memorandum by the Secretary of State. It will be sufficient here to refer only to the more important facts specially affecting the revenue and expenditure of 1908-9.

FINANCE.

*Land Revenue.*—In 1907–8 the liberal remissions of land revenue, consequent on the failure of the harvests over a large part of India, caused the net revenue of the year to be considerably below normal. Better conditions prevailed generally in 1908–9, and in the United Provinces and Central Provinces a larger proportion of arrears was recovered than had been expected. The revenue, however, was adversely affected by the failure of the winter rains in Bombay and the partial drought in Upper Burma.

*Opium.*—In accordance with arrangements with the Chinese Authorities, the number of chests of opium exported from India was limited by the Government of India. The export of Bengal opium was reduced from 48,900 chests in 1907–8 to 45,900 chests in 1908–9. The large increase in the revenue was due in part to the high prices realised at the sales in Calcutta, but mainly to the fact that in addition to the duty paid on 15,100 chests of Malwa opium, the permissible export for the year, duty was also received on account of nearly 20,000 additional chests from traders anxious to secure priority for the shipments of 1909 and 1910.

*Railways.*—For the first time since 1898–9 the railway revenue account shows a net charge amounting in the year under review to £1,242,250. The gross earnings of the railways fell below the Budget estimate by £2,414,800 in consequence of bad harvests and the general stagnation of trade. At the same time working expenses increased owing to a variety of causes, of which the chief were the revision of the pay of the staff, the high prices of coal and the grant of grain compensation allowances to employees in consideration of the prevailing high prices.

*Military Services.*—The additional payment of £275,000 to the War Office on account of the training of British troops employed in India and the operations against the Mohmands were chiefly responsible for the increased expenditure under this head.

*Civil Services.*—A special bonus given on the 50th anniversary of the Royal Proclamation of 1858 and grants to low-paid Government servants on account of the dearness of food contributed largely to the rise in expenditure during the year.

## CASH BALANCES.

Cash balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

| | On 1st April | | | Increase or Decrease. | |
|---|---|---|---|---|---|
| | 1907. | 1908. | 1909. | In 1907-8. | In 1908-9. |
| | £ | £ | £ | £ | £ |
| In India - - - - | 10,328,237 | 12,851,723 | 10,235,827 | +2,523,486 | *—2,615,896* |
| In England - - - - | 5,606,812 | 5,738,489 | 8,453,715 | +131,677 | +2,715,226 |
| Total - - £ | 15,935,049 | 18,590,212 | 18,689,542 | +2,655,163 | + 99,330 |

## PROVINCIAL FINANCE.

Provincial finance.

Under the system of decentralisation of finance, begun by Lord Mayo in 1870 and subsequently developed by successive stages, the Government of India assigns to the Provincial Governments a fixed share of the revenue collected by them under certain heads. From the revenue so assigned the Provincial Governments are required to meet the whole of the expenditure within their respective provinces under certain heads, and a portion of the expenditure under other heads. The revenue retained by the Government of India for its own purposes and for meeting the expenditure incurred by the Secretary of State in England is described in the accounts as Imperial, and that which is assigned to the Provincial Governments is described as Provincial. The expenditure is similarly classified. The Provincial Settlements, by which the classification into Imperial and Provincial of the various items of revenue and expenditure and the ratio of division of the divided heads are governed, have been placed on a quasi-permanent basis with the object of giving to the Provincial Governments as large an interest as possible in the careful collection of revenue and in economy of expenditure. The principal heads of revenue which are wholly Imperial are Opium, Salt, Customs, Post-Office, Telegraph, Mint, Exchange, and State Railways; the principal divided heads being Land Revenue, Irrigation, Stamps, Excise, Assessed Taxes, and Forests. On the expenditure side of the accounts the charge for

Military Services, Debt Services, and the charges under certain minor heads (Territorial and Political Pensions, Ecclesiastical, &c.) are entirely Imperial; "General Administration" is divided; most other important heads of expenditure are provincial.

The net revenue of 1907–8 and 1908–9 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows :—

| | 1907–8. | | | 1908–9. | | |
|---|---|---|---|---|---|---|
| | Imperial. | Provincial. | Total. | Imperial. | Provincial. | Total. |
| | £ | £ | £ | £ | £ | £ |
| Net Revenue - | 29,226,186 | 17,780,186 | 47,006,372 | 25,968,321 | 19,731,851 | 45,700,172 |
| Net Expenditure - | 28,920,140 | 17,780,186 | 46,700,326 | 29,706,031 | 19,731,851 | 49,437,882 |

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. The Provincial Governments spent £865,299 from their balances in 1907–8 and £667,343 in 1908–9.

Contribution by each province towards expenditure of the central Government.

The following table shows for each province separately the amount by which the total revenue collected therein (whether classified in the accounts as Imperial or Provincial) exceeds or falls short of the total expenditure incurred therein, and thus indicates the extent to which each province contributes towards the expenditure of the Government of India and the Secretary of State, or draws upon the general revenues :—

| Provinces, &c. | 1907–8. | | 1908–9. | |
|---|---|---|---|---|
| | Excess of Revenue. | Excess of Expenditure. | Excess of Revenue. | Excess of Expenditure. |
| | £ | £ | £ | £ |
| Bengal - - - - - | 6,581,418 | — | 6,549,909 | — |
| Eastern Bengal and Assam - - | 1,279,727 | — | 1,093,947 | — |
| United Provinces - - - | 1,934,968 | — | 2,022,349 | — |
| Punjab - - - - - | 1,268,804 | — | 1,328,853 | — |
| Burma - - - - - | 2,156,310 | — | 2,193,780 | — |
| Central Provinces and Berar - - | 293,338 | — | 194,749 | — |
| Madras - - - - - | 4,853,138 | — | 4,643,458 | — |
| Bombay - - - - - | 4,908,548 | — | 5,444,367 | — |
| North-West Frontier Province - - | — | *244,091* | — | *323,253* |
| India, General - - - - | — | *4,957,484* | — | *8,562,450* |
| England - - - - - | — | *17,768,630* | — | *18,323,419* |
| Net result - - - | Surplus £306,046 | | Deficit *£3,737,710* | |

## HOME CHARGES.

Home charges.

The net expenditure in England chargeable to revenue, as shown in the preceding table, may be classified under the following principal heads :—

| | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Interest and management of debt, and payment of interest and annuities on account of railways and irrigation works. | 9,811,637 | 10,196,960 |
| Payments in connection with Civil Departments in India - - | 198,273 | 158,556 |
| India Office (excluding pensions) - - - - - | 204,154 | 209,284 |
| Army and marine effective charges - - - - | 850,343 | 1,096,688 |
| Stores of all kinds charged against revenue - - - - | 1,431,134 | 1,281,998 |
| Furlough allowances - - - - - - - | 872,087 | 936,773 |
| Non-effective charges (pensions and gratuities) - - - - | 4,401,002 | 4,443,160 |
| Total - - - - £ | 17,768,630 | 18,323,419 |

FINANCE.

Capital outlay on public works.

## CAPITAL OUTLAY ON PUBLIC WORKS.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

| | 1907–8. | 1908–9. |
|---|---|---|
| Amount supplied by State borrowing or from the Cash Balances, without being charged against the Revenue of the year :— | £ | £ |
| State Railways | 10,567,045 | 9,488,168 |
| Irrigation Works | 845,722 | 983,489 |
| Amount met by Debenture Stock issued by Companies | 1,897,112 | 4,278,547 |
| Amount defrayed from Revenue : | | |
| Provincial and local Railways | — *197,975* | 415 |
| Preliminary Railway expenditure not originally charged to construction | 7,443 | — |
| Protective Railways | 6,561 | 70 |
| Protective Irrigation Works | 417,240 | 403,030 |
| Other Irrigation Works* | 35,067 | 15,924 |
| Total Direct Outlay by the State | 13,578,215 | 15,169,643 |
| Outlay by companies guaranteed or subsidised by Government | — *133,183* | 556,903 |
| Outlay by Local Boards | 34,163 | — |
| Total Capital Outlay on Railways and Irrigation £ | 13,479,195 | 15,726,546 |

* Excluding capital outlay on the minor works, against which interest is not charged in the accounts.

## DEBT.

Debt.

*Amount of Debt.*—The total debt of India on the 1st April 1908 was :—

| | £ |
|---|---|
| In England | 157,481,074 |
| In India, Rs. 1,32,82,94,955, equivalent at 1*s.* 4*d.* the rupee to | 88,552,997 |
| Total | £246,034,071 |

In August 1908 a rupee loan of 2 crores (£1,333,000) was issued in India at an average price of Rs. 95·44 per cent. In England an issue of £1,000,000 Sterling Bills for 12 months was made in April 1908, at an average price of £96 15*s.* 10*d.*, in replacement of bills falling due on that date; £2,500,000 were issued for 12 months in June 1908 at an average price of £97 3*s.* 10*d.* and a further £2,500,000 were issued in the following December for the same period at an average price of £97 1*s.* 4*d.* to provide funds for capital expenditure on railways in India and general purposes. In February 1909 £7,500,000 India 3½ per cent. stock was issued in England at £97 per cent. to provide in advance for a portion of the capital requirements of railways in 1909–10.

During the year under report an offer was made to holders of the 3 per cent. Rupee Loan of 1896–7 to convert their promissory notes or stock into notes or stock of the 3½ per cent. Rupee Loan of 1900–1. The terms of the conversion were such as to give the holder the necessary quantity of stock of the new denomination to yield by way of interest exactly the same income as he was entitled to on his previous holding.

The total debt outstanding on 31st March 1909 was as follows :—

| | £ |
|---|---|
| In England | 166,973,369 |
| In India, Rs. 1,34,56,60,505, equivalent at 1*s.* 4*d.* the rupee to | 89,710,700 |
| Total | £256,684,069 |

*Classification of the Debt.*—The total debt is classified in the accounts as (1) Public Works Debt and (2) Ordinary Debt. The amount entered as belonging to the former category is the equivalent of the total capital expenditure which has been incurred by the State on public works, together with the amount advanced to railway companies for capital expenditure; the "Ordinary Debt" consists of the remainder of the debt. In any year in which, owing to the use of surplus revenue or deposits for the construction of public works, the capital expenditure of the year exceeds the amount of debt incurred in the year, the effect of this system of classification is to cause a decrease to be shown in the amount of the Ordinary Debt.

The classification of the debt outstanding on the 31st March 1908 and the 31st March 1909 was as follows:—

| | 1908. £ | 1909. £ |
|---|---|---|
| Debt for railways - - - - | 177,702,283 | 182,213,141 |
| Debt for irrigation works - - - | 29,872,728 | 30,738,991 |
| Total of public works debt - | 207,575,011 | 212,952,132 |
| Balance being ordinary debt - - - | 38,459,060 | 43,731,937 |
| Total debt on 31st March - | £246,034,071 | £256,684,069 |

## CURRENCY AND EXCHANGE.

Currency and exchange.

*Currency Legislation.*—Up to 1893 the standard of value in India was silver, the rupee (180 grains of silver, eleven-twelfths fine) and the half rupee being full legal tender for the payment of debts, and the mints being open to the receipt from the public of silver for coinage without limit. From 1871 to 1893 the exchange value of the rupee (*i.e.*, the sterling rate at which bills of exchange payable in India were sold) fell almost continuously, the fall being due to the decline in the price of silver, by which the value of the rupee was necessarily governed. Apart from its effect on trade the continual fall in the rupee caused serious difficulties to the Government, because, its revenue being collected in rupees, it is compelled to provide for the greater part of its sterling payments by the sale in London for sterling of bills of exchange and telegraphic transfers payable in rupees in India, and the number of rupees required for defraying any given amount of sterling expenditure increased with each fall in the sterling rate at which bills were sold. In the period from 1871 to 1893 the rate fell from about 2*s.* the rupee (ten rupees to the £) to about 1*s.* 3*d.* the rupee (sixteen rupees to the £). In view of the embarrassment arising from this depreciation in the standard of value it was decided in 1893, in accordance with the recommendation of Lord Herschell's Committee, that silver should no longer be coined on presentation by the public, but the right was given to the public to demand from Government rupees in exchange for gold at the rate of 15 rupees for £1 without limit of amount. Silver thus ceased to be the standard of value in India (though it is still used as before as the chief material of currency); and the exchange value of the rupee ceased to coincide with the price of silver. In 1898 a committee was appointed, under the chairmanship of Lord Wolverhampton, then Sir Henry Fowler, to consider certain proposals made by the Government of India for the completion of the policy adopted in 1893. Sir Henry Fowler's Committee reported in 1899, and recommended that the decisions reached on the recommendations of Lord Herschell's Committee in 1893 should be maintained, and that the English sovereign should be declared legal tender in India at the rate of one sovereign to fifteen rupees (*i.e.*, 1*s.* 4*d.* to the rupee). These recommendations were accepted by the Government. Since 1898–9 the exchange value of the rupee has remained steady at about 1*s.* 4*d.*

Gold Standard Reserve.

*Gold Standard Reserve.*—In accordance with a recommendation made by Sir Henry Fowler's Committee it was decided that, with effect from the 1st April 1900, the net profit from the coinage of rupees should not be treated as revenue, but should be held as a special reserve, and sent to England for investment in sterling securities. Up to 1906 practically the whole amount was remitted to England and applied to the purchase of British Government securities, the interest realised being added to the fund and invested, but in that year it was decided that a portion of the reserve should in future be held in silver in India. In 1907–8 and 1908–9 in consequence of a further decision half the profits on coinage were applied to capital expenditure on railways, but the application of this decision has now been temporarily suspended.

| | £ |
|---|---|
| 1900–1 - | 3,031,294 |
| 1901–2 - | 415,100 |
| 1902–3 - | 264,028 |
| 1903–4 - | 2,627,575 |
| 1904–5 - | 1,790,380 |
| 1905–6 - | 3,677,880 |
| 1906–7 - | 4,014,426 |
| 1907–8 - | 1,123,603 |

The annual amount of the profits on coinage, in each year from 1900–1 to 1907–8 credited to the reserve under the arrangements above described, is shown in the marginal table.

No coinage was undertaken from purchased silver in 1908–9, and the addition to the gold standard reserve during the year in respect of operations at the mints only amounted to £51.

FINANCE.

The constitution of the reserve on the 31st March 1909 was as follows:—

| | £ |
|---|---|
| Sterling securities (at cost price) | 7,414,510 |
| Silver (coined rupees in India) | 10,586,734 |
| Cash in England | 469,818 |
| Due from Treasury balances in India | 344 |
| Total | £18,471,406 |

Exchange and remittance.

*Exchange and Remittance.*—During the years 1907–8 and 1908–9 the sale by the Secretary of State of bills and telegraphic transfers on India was as follows:—

1907–8 £15,307,061 at an average rate of 1*s.* 4·029*d.* per rupee.
1908–9 £14,144,545 „ „ 1*s.* 3·93*d.* „ „

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports. In 1907–8 the excess of exports and the demand for the Secretary of State's bills and transfers were unusually small, being affected by several causes, amongst which may be mentioned the exceptionally large imports, the check to the growth of exports due to the partial failure of the autumn monsoon, the reduced price of jute (a very important article of export), and the stringency which prevailed during a part of the year in the London money market. The effect of these conditions made itself felt with unusual intensity towards the end of the financial year, when the normal commercial demand for remittances to India practically ceased for a time, and it became evident that special facilities for remittance in the opposite direction were for the time required in order to enable the balance of trade to be adjusted. In the special circumstances the Secretary of State authorised the Government of India to invite applications in India for sterling bills on London at a fixed rate of 1*s.* $3\frac{29}{32}$*d.* the rupee. Bills were sold from week to week during the period between 25th March and 11th September 1908, the total amount sold being £8,058,000. The bills were met in London by the Secretary of State from the proceeds of the realization of a portion of the securities held on behalf of the Gold Standard Reserve, the par value in rupees received in India for the bills being at the same time paid to the silver portion of the reserve held in that country.

In September 1908, exchange strengthened, and from this date the demand for Council bills revived, and apart from a slight decline towards the end of October has continued without interruption. This improvement in exchange has enabled the Secretary of State to increase the nominal value of the securities held on account of the Gold Standard Reserve in England from £5,857,000 in February 1909 to £11,295,000 in February 1910. During this period a corresponding reduction was effected in the value of the rupees held in India in the silver branch of the reserve, which had been abnormally swollen by the operations of the previous year.

Coinage.

*Coinage.*—The silver coinage at the Indian Mints was:—

| | 1907–8. Number Coined. | 1908–9. Number Coined. |
|---|---|---|
| Rupees | 173,269,893 | 25,130,598 |
| Half-rupees | 4,641,294 | 1,576,498 |
| Quarter-rupees | 11,464,000 | 7,083,812 |
| Eighth-rupees | 21,600,000 | 6,786,912 |
| British Dollars (for export to Hong Kong) | 1,945,726 | 6,870,741 |

With the practical cessation in March 1908 of the demand for Council bills the need for fresh issues of rupees in India ceased also. The rupee coinage of 1908–9 represented almost entirely the recoinage of old rupees and uncurrent coin.

The value of the copper, bronze, and nickel coinage during the two years was as follows:—

| | 1907–8. | 1908–9. |
|---|---|---|
| Copper | 2,003 | 9,022 |
| Bronze | 255,945 | 73,597 |
| Nickel | 155,233 | 93,900 |

Paper currency.

*Paper Currency.*—Under the Indian Paper Currency Act, 1905 (III. of 1905), Paper Currency Notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 20, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. By an Act

passed in 1909 the five rupee note which had previously been legal tender throughout India was declared to be legal tender in Burma. The growing popularity of the "universal" five rupee note is a prominent feature of the paper currency circulation in India, and legislation has been initiated with a view to "universalising" notes of the denominational value of 10 and 50 rupees. Notes of higher value than five rupees are at present legal tender only within the currency circle from which they are issued. There are eight currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, Calicut, and Rangoon respectively. The Act requires that a reserve shall be held against the notes equal to their full value; securities of the Government of India and of the British Government may be held as part of the reserve up to a limit of £8,000,000, of which the British Government securities may not exceed £1,333,000 (Rs. 2,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1909 the value of notes in circulation was £30,325,000, being less by £932,000 than on the corresponding date in 1908. The constitution of the paper currency reserve was as follows:—

| | £ |
|---|---|
| Gold | 1,523,414 |
| Silver coin | 20,759,425 |
| Silver bullion | 52,465 |
| Securities of the Government of India | 6,667,000 |
| Securities of the British Government | 1,333,000 |

## BANKS.



*The Presidency Banks.*—The three Presidency Banks of Bengal, Madras, and Bombay are bodies corporate, constituted under the Presidency Banks Act of 1876. This Act has been modified by a succession of other Acts, of which the most recent was passed in 1907. It regulates the constitution and management of the banks and prescribes the kind of business that they may undertake. The most important statutory restrictions are that they may not borrow out of India, nor draw, discount, buy, or sell bills of exchange, or other negotiable securities payable outside India or Ceylon, except that, when they receive interest, or the proceeds of the sale of securities, on behalf of their principals, they may draw bills of exchange or grant letters of credit, payable out of India, for the purpose of remitting such interest or proceeds at the risk of the principals. The effect of these restrictions is to prevent the Presidency Banks from dealing in foreign exchanges or otherwise employing their capital out of India.

The Presidency Banks in accordance with the provisions of agreements into which the Government of India has entered with them, act as bankers for the Government of India, paying and receiving money on its behalf and managing the public debt; they receive in return a fixed annual payment, and a commission on the amount of the public debt which they manage. The Government also undertake to keep a minimum balance at each bank, or, failing this, to pay interest on the deficiency.

The following table shows the extent of the business of the Presidency Banks at the end of December 1909:—

| — | Bank of Bengal. | Bank of Madras. | Bank of Bombay. | Total. |
|---|---|---|---|---|
| | £ | £ | £ | £ |
| Paid up capital | 1,333,333 | 400,000 | 666,667 | 2,400,000 |
| Reserve | 1,120,000 | 293,333 | 686,667 | 2,100,000 |
| Public deposits | 997,364 | 328,105 | 806,275 | 2,131,744 |
| Other deposits | 11,524,977 | 3,337,465. | 6,896,559 | 21,759,001 |

*Banks registered under the Indian Companies Act.*—The number of joint stock companies registered as engaged in banking or loan operations in India, on 31st March 1909, was 507. The majority of these companies consist of societies with a relatively small capital, but the number includes 49 establishments with a paid-up capital of or exceeding £10,000. The corresponding number of such companies in 1906 was 34.

LIBRARY OF THE

# CHAPTER IV.

LAND REVENUE.

## LAND REVENUE.

| | |
|---|---|
| LAND TENURES. | REVENUE ASSESSMENTS, &c. |
| LAND LEGISLATION. | COLLECTION OF THE REVENUE. |
| REVENUE SURVEYS, SETTLEMENTS, &c. | WARDS' AND OTHER ESTATES. |

(*For further details see Statistical Abstract of British India, Tables* 45 *to* 49 *and* 122.)

The present chapter deals with Land Revenue (including revenue from Capitation Tax, Fisheries, &c.) and with subjects appertaining thereto. From time immemorial a share of the produce of the land has been the chief source of public revenue in India. Land revenue is still the mainstay of the Government, constituting nearly 40 per cent. of the total net revenue that accrues to the Indian Exchequer.

### LAND TENURES.

Land Tenures.

Owing to its far-reaching social and political effects the proper administration of the land revenue has always been one of the chief problems of the Indian Government, and during the early years of British rule the best methods of assessment were keenly debated. In 1793 Lord Cornwallis introduced into Bengal a permanent settlement, by which the demand of the State was fixed and made for ever unalterable. Other systems were gradually evolved, and at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 10 to 30 years, the latter period prevailing in all the larger provinces except the Punjab and the Central Provinces, where settlements are usually made for 20 years, and in Burma where the ordinary term is now 15 years. At these settlements careful surveys are made of all holdings and records of rights in the land. The policy of long term settlements is being extended. Under the system of periodical revisions of the land assessment the State secures a share in the increased rental value arising from the general progress of the community. Of late years measures have been taken to exempt improvements from assessment, and generally to make the enforcement of the rights of the State as little burdensome as is possible to the revenue-payer. Periodical revision also affords the opportunity of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities arising from any cause.

When the revenue is assessed by the State, permanently or temporarily, on an individual or community owning an estate, and occupying a position identical with, or analogous to, that of a landlord, the assessment is known as *zamindari;* where the revenue is imposed on individuals who are, or who represent, the actual occupants of holdings, the assessment is known as *ryotwari.* Under either system there may be rent-paying sub-tenants. In southern India, where most of the land is held by petty occupiers direct from the State, the occupiers have the right to retain their holdings so long as they pay the revenue due from them. In both the permanently and temporarily settled districts of northern India laws have been passed to safeguard tenant rights. The permanently settled districts, in which all holdings are *zamindari*, cover most of Bengal and Eastern Bengal, and parts of Madras and the United Provinces. As regards temporarily settled districts, *zamindari* estates, held by proprietary groups or large individual proprietors, are chiefly found in the Punjab, the United Provinces, the Central Provinces, and Orissa (Bengal), while in Bombay and Sind, Burma, Assam, Berar, and most of Madras the system of *ryotwari*, or peasant proprietors, prevails.

The appended table gives the acreage of the surveyed areas in which the various tenures prevailed during 1908–9 (in thousands of acres). The figures include waste and uncultivated areas as well as cultivated lands, and are merely indicative of the extent to which the two systems respectively prevail.

| Province. | *Ryotwari* (Peasant Proprietors). | *Zamindari* (Individual Proprietors or Village Communities). | | Total. |
|---|---|---|---|---|
| | | Permanently settled. | Temporarily settled. | |
| | 000 acres. | 000 acres. | 000 acres. | 000 acres. |
| Burma | 113,004 | — | — | 113,004 |
| Assam | 25,871 | 3,931 | 1,496 | 31,298 |
| Eastern Bengal | — | 21,712 | 7,004 | 28,716 |
| Bengal | — | 59,240 | 14,850 | 74,092 |
| United Provinces of Agra and Oudh | — | 7,841 | 60,575 | 68,416 |
| Punjab | — | — | 62,220 | 62,220 |
| North-West Frontier Province | — | — | 8,438 | 8,438 |
| Bombay | 44,827 | — | 3,785 | 48,612 |
| Sind | 29,933 | — | — | 29,933 |
| Central Provinces | 1,682 | — | 40,662 | 42,344 |
| Berar | 11,289 | — | — | 11,289 |
| Madras | 61,577 | 29,179 | — | 90,756 |
| Minor Administrations (Ajmere, Coorg, Manpur) | 1,043 | 959 | 735 | 2,737 |
| Total | 289,226 | 122,864 | 199,765 | 611,855 |

It will thus be seen that about 47 per cent. of the total area is held by peasant proprietors, while 20 per cent. is held by permanently settled, and 33 per cent. by temporarily settled, *zamindari* proprietors.

## LAND LEGISLATION.

Land Legislation. Bengal.

Throughout the major part of the province the relations between landlord and tenant are governed by the Bengal Tenancy Act, which continued to work satisfactorily. Of the districts where there has been no general survey and record of rights, the landlords and tenants of Midnapore seem to have had recourse most freely to the Act. Settlement operations in the extensive Government estates of that district appear to have educated tenants in their rights and duties, and the lesson has to some extent been conveyed also to the landlords and tenants of private estates, whose relations are somewhat strained. In South Monghyr extensive use was made of the Act to effect a reduction of rent and an amiable settlement of long-standing rent disputes between landlords and tenants. The settlement operations in Chota Nagpur have yielded much information regarding local agrarian conditions and causes of dispute between landlord and tenant, and the Chota Nagpur Tenancy Act of 1908 was passed to amend and codify the existing laws. A new tenancy law for Orissa is under consideration.

United Provinces.

Owing to the protection afforded by the Agra Tenancy Act the area held by occupancy tenants and non-occupancy tenants of 12 years' standing, or holding on long term leases for seven years and upwards, has markedly expanded. Out of $20\frac{1}{2}$ million acres held by ordinary tenants $13\frac{2}{3}$ million acres are now protected.

The results of the working of the Bundelkhand Alienation of Land Act, 1903, seem to have been encouraging. During a year of scarcity in which there was every inducement to agriculturists to raise money by selling part of their property, the Act produced an increase in the acreage of land held by agricultural castes. Though the Act must tend to depreciate the selling value of land by limiting the number of purchasers, the price per acre is rising owing to reduced assessments and, in parts, the introduction of canal irrigation. Attempts to evade the Act were few.

Punjab.

The Punjab Land Alienation Act of 1900 for the first time underwent the severe test of a year of acute agricultural distress. There was nothing to show that it has caused any undue contraction of credit, nor has the limitation of the market reduced the prices of land. The tenant, instead of alienating his land during scarcity, now applies to Government for suspensions of land revenue and for loans. The area of land sold in the year was 9 per cent. below the average of the quinquennium 1902 to 1906, and most of it was bought by members of agricultural tribes. The Act has effected its purpose by very materially reducing transfers from the agricultural to the non-agricultural community. The average price per acre of cultivated land has risen to Rs. 97, or 108 times the land revenue assessed. But though a net area of 339,524 acres of land has been released from mortgage during the past four years, the burden of debt on land has been increased. Nevertheless, the peasant is undoubtedly less reckless in borrowing than under the system of unlimited credit. It is too early to

LAND REVENUE.

gauge the effect of the amendments made in the Act of 1900 by the amending Act of 1907. Their general object was to remove defects which had come to light in the working of the law, and to increase the difficulty of evading its provisions.

North-West Frontier Province.

The Punjab Alienation of Land Act, 1900, as modified by the North-West Frontier Province Regulation No. I. of 1904, and as amended in 1907, continued operative in three districts, and gave general satisfaction. Transactions in land increased considerably, but the area of land transferred to money-lenders showed a marked decrease.

Burma.

There is a tendency in Burma for land to pass from agriculturists to non-agriculturists, partly owing to the remarkable rise in the value of land. Legislation to regulate land alienation has been under consideration, and a Burma Tenancy Bill has been introduced with the view of protecting the agricultural tenant against rack-renting and arbitrary eviction.

Madras.

The Madras Land Encroachment Act of 1905 worked without hardship. The important measure for defining and regulating the position of tenants in the *zamindari* areas, known as the Madras Estates Land Act of 1908, has not been in force long enough for the people to understand its provisions, but certain zamindars view it with disfavour. Its immediate effect in some districts has been disturbing, and it has led to litigation.

## REVENUE SURVEYS AND SETTLEMENTS AND LAND RECORDS.

Revenue Surveys and Settlements and Land Records.

For the purpose of land revenue assessment revenue surveys are necessary. Cadastral maps showing the holdings are prepared, and corresponding field registers are made showing from whom the revenue assessment is to be realised, and also the amount of such assessment. The record also usually exhibits the existing rights in, and encumbrances on, the land. As the revenue records are carefully revised at short intervals a very extensive and complete system of registration by public entry is being built up, and transfers of land are easily attested. Settlements (or re-settlements) in new or in temporarily settled areas are always in progress. In consequence of improved methods the period occupied in the process is much shorter than formerly, and involves comparatively little harassment of the people.

Bengal.

A scheme for an independent provincial survey department has been sanctioned. Survey and settlement work during the agricultural year to September 1908 extended over 14 districts. The total area for which a record of rights has now been completed in Bengal is 44,007 out of 115,819 square miles. Rents were settled for 257,733 tenants. The revision of the records of the last settlement in the temporarily settled districts of Orissa was continued on the improved lines sanctioned last year. It was found that out of 352,872 holdings dealt with ownership had been changed in 73 per cent. in 10 years. Revision operations are more popular with the ryots than the zamindars. There is a growing appreciation of the usefulness of the records of rights and of the village and other maps.

United Provinces.

In the United Provinces the revision of settlements in Agra province was practically completed, and the survey branch of the Land Records Department was abolished. The reorganised Land Records Department has made progress in all directions. The village maps of Agra Province have been brought up to date. A revised Land Records Manual has been prepared.

Punjab.

Settlement operations were completed in Mianwali district in 1907–8 and in Gurgaon district in 1908–9, and made good progress in six other districts. The assessments in these districts gave an increased land revenue of 13 and 15 per cent., respectively. In order to save trouble to the people and cost to the Government it is proposed to shorten settlement operations by curtailing the time spent on measurement work and the revision of the record. Over 835,000 changes in permanent rights were attested. The land records save landowners and cultivators from many bitter disputes and ruinous litigation. The agriculturist element in the *patwari* staff was strengthened.

North-West Frontier Province.

Settlement operations in the Frontier Province were completed during 1906–7 after six years' work. But owing to complaints of unduly heavy enhancements of revenue imposed in the settlements an inquiry was undertaken, and it was shown that, although defensible from a purely revenue standpoint, the enhancements were too high and sudden, while insufficient consideration had been paid to the poor

communications and to the insecurity of life and property inseparable from a border tract. Proposals for certain deductions which should secure a reasonable measure of relief have already been sanctioned for the Kurram and Tochi Agencies, and are under consideration for four districts. In the Department of Land Records the number of mutations attested was 125,795. LAND REVENUE.

During 1908–9 demarcation in advance of cadastral survey by local agency was undertaken in three districts. In order to correct obsolete maps there were revision surveys in seven districts. Extensive surveys, necessitated by extensions of cultivation, were undertaken in five districts. Of the 37 districts of the province 31 are wholly or partly under settlement and one is about to be settled. The remaining districts are hilly and sparsely populated, and it has been decided that settlement is not at present necessary. The area under settlement is about 48,000 square miles, representing under one-third of the gross area, but including most of the cultivated area. In five districts second settlements have been made. In one a third settlement is in progress. During 1908–9 settlement operations were in progress in two districts of Lower, and four of Upper, Burma. The average cost of the operations was 7*d.* per acre. It has been decided to extend the normal period of settlement from 15 to 20 years and to graduate the increases of rates imposed in revision settlements. The rates fixed in the first settlements were very low and early revision was desirable, but now that in most districts of Lower Burma normal rates have been fixed, the need of frequent revision and considerable increases in revenue rates has largely disappeared. It has also been decided to devote at least two years to the examination on revision of any area proposed for re-settlement. New rates consequent on settlement were notified in two districts on a cultivated area of 509,943 acres, the aggregate revenue demand being increased by 21,560*l.*, or 29 per cent. A reorganisation scheme for the Land Records Department came into operation during the year. Burma.

During the year settlement operations were carried on in five districts, but were much hampered by the employment of the staff on work connected with the scarcity. In the Land Records Department satisfactory progress was made, especially in Berar. Central Provinces and Berar.

In 1907–8 the Department of Land Records was separated from that of Agriculture, and the control of petty settlements was transferred to the Director of Land Records. A survey and record of rights for the entire settled area of the province are being prepared, and afterwards the village maps and records will be kept up to date. The record of rights is increasingly utilised by executive and judicial officers. Survey and settlement operations on a large scale were conducted in four districts of Eastern Bengal during 1908–9. In Assam the Nowgong and Darrang re-settlement operations were completed. Eastern Bengal and Assam.

Survey parties were at work during 1908–9 in six districts, but the department was again unable to work up to the forecast. Six settlement parties continued their operations. The aggregate land revenue demand of the districts either newly settled or re-settled is £3,536,680, an increase of 26·7 per cent. on the demand prior to re-settlement. The cost of the re-settlement operations up to the end of 1908–9 has been £1,089,320. The Land Records Department was, as in previous years, mainly confined to measures preliminary to maintenance. Madras.

The survey and settlement officers were engaged in demarcation, measurement, classification, and other work of a routine character. The Land Records Staff were occupied with the compilation and maintenance of the record of rights. The compilation was well advanced. Bombay.

## REVENUE ASSESSMENTS AND INCIDENCE.

Land revenue is realised in the form of an annual payment for cash, the assessment rates being subject to no alteration during a prescribed term of years, though the amount leviable in any year may vary according to the area actually cultivated or to the condition of the harvest. Except in Bombay (where the assessment is not fixed in terms of produce), the land revenue is assessed so as to represent a share, not of the gross, but of the *net* produce (or net assets). In the zamindari, or landlord settlements, that widely prevail in Northern India, the cultivating tenant pays rent to a landlord. Of this rent the Government usually takes rather less than 50 per cent. as land revenue. Revenue Assessments and Incidence.

The incidence of land revenue on the fully assessed cultivated area is under 1*s.* 1*d.* per acre in the permanently settled area of Bengal, and represents, on an average, less than 25 per cent. of the rental. In the permanently settled tracts of Eastern Bengal it falls to about 11*d.* per acre, while in those of the United Provinces it rises to 1*s.* 4*d.* in Oudh and 1*s.* 10*d.* in Agra. In the temporarily settled tracts the

LAND REVENUE.

incidence per acre is approximately 1*s.* 10*d.* in Upper Burma, 3*s.* 7*d.* in Lower Burma, 3*s.* 3*d.* in Sind, 3*s.* 3*d.* in Madras, 2*s.* 4*d.* in Agra, 2*s.* 6*d.* in Oudh, 2*s.* 4*d.* in Eastern Bengal, 1*s.* 11*d.* in Bombay, 1*s.* 7*d.* in Berar, 1*s.* 5*d.* in the Punjab, and 8*d.* to 9*d.* in the Central Provinces. A return recently presented to Parliament on land revenue assessments in the Punjab since 1855 (Cd. 3991) shows that while the rate of land revenue per cultivated acre measured in rupees has not varied much in the last 50 years, its incidence measured in gold has greatly decreased. During this period there has been a remarkable rise in the selling prices of land. Rates of revenue vary greatly with the productive power of the soil, advantages of climate and irrigation, and facilities for marketing produce. The land revenue rates for Sind and Madras given above, include charges for State irrigation; elsewhere the land revenue rates exclude these charges. In Madras and Bombay the revenue demand is not enhanced on account of increased productiveness due to private improvements, while in Northern India such improvements are not taken into account in assessing the revenue until a period varying from 20 to 45 years has elapsed. It may be added that the burden of the land revenue per head of the population of British India was under 1*s.* 7*d.* in 1908–9.

It has been calculated that in the Central Provinces the share of the gross produce represented by the land revenue is less than 4 per cent. of the average annual value; in Berar, the Deccan, and the greater part of the Punjab, about 7 per cent.; and in Gujarat, 20 per cent. It is certain that the Government now takes a very much smaller share of the gross produce than was customary in the days before British rule, while the assessments are lower than those that prevail generally in the Native States.

The Government makes liberal reductions of assessments in cases of local deterioration, where such reductions cannot be claimed under the terms of settlement.

## COLLECTION OF THE REVENUE.

Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the following table :—

| Year. | Land Revenue Receipts (excluding those due to Irrigation). | Variation (Average of Five Years, 1881-5=100). |
|---|---|---|
| | £ | |
| 1881–5 (five years' average) | 14,748,000 | 100·0 |
| 1886–90 „ „ (annexation of Upper Burma) | 15,445,000 | 104·7 |
| 1891–5 „ „ | 16,522,000 | 112·0 |
| 1896–1900 „ „ (includes two famines) | 17,217,000 | 116·7 |
| 1900–5 „ „ | 18,483,000 | 125·3 |
| 1905–6 (single year) | 18,836,000 | 127·7 |
| 1906–7 „ | 19,794,000 | 134·2 |
| 1907–8 „ (widespread shortage of crops) | 18,719,000 | 126·8 |
| 1908–9 „ | 19,759,000 | 134·0 |

The general increase in land revenue is attributable to a variety of causes—to the inclusion of new territory (as Upper Burma); to the bringing of new land under cultivation as in Lower Burma, the Central Provinces, Sind, and the Punjab; to the inclusion of Berar since 1st October 1902; and to the progress of settlements and re-settlements, which, owing to the generally enhanced values of land, usually result in additions to the land revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab. In the five years to 1906–7 the cultivated area in the Punjab increased by no less than $1\frac{1}{2}$ million acres, and the area under canal irrigation increased by over $1\frac{1}{3}$ million acres to $6\frac{3}{4}$ million acres. As a result the provincial assessment was increased by about £147,000. The land revenue is usually paid punctually, and it is seldom necessary to have recourse to imprisonment, sales of land, or other processes for the recovery of arrears.

The receipts for 1908–9 were seriously affected by the failure of the winter rains in Bombay and other provinces, and the partial drought in Upper Burma. On the other hand, there were large collections in the United Provinces and the Central Provinces of arrears of land revenue suspended during the famine. There was larger expenditure on account of compensation to subordinate officials for dearness of grain, and unexpectedly heavy charges for survey and settlement operations in the Punjab and Madras.

The land revenue receipts in 1907–8 and 1908–9 were made up as follows :— LAND REVENUE.

| | 1907–8. | 1908–9. |
|---|---|---|
| Ordinary land revenue | £17,781,132 | £18,864,010 |
| Assessment of alienated lands, less quit-rents* | 630,551 | 633,533 |
| Capitation tax, or house tax levied in lieu thereof† | 607,897 | 660,074 |
| Recovery of survey and settlement charges‡ | 99,767 | 39,090 |
| Sale of waste lands and redemption of land revenue | 59,957 | 50,365 |
| Fisheries and other receipts | 578,235 | 581,362 |
| Sale of proprietary right of Government in land | 2,316 | 21,670 |
| | £19,759,855 | £20,850,104 |
| *Deduct* portion of land revenue due to irrigation | 1,040,533 | 1,091,044 |
| Total land revenue | £18,719,322 | £19,759,060 |

The charges in 1908–9 included £1,588,494 for district administration, £451,396 for survey and settlement charges, £945,507 for land records, and £668,071 for collection of the revenue. The total charges were £3,653,932, and the net revenue £16,105,128.

The total advances made by Government to cultivators during 1908–9 amounted to £2,261,040, and the total amount of advances outstanding at the close of the year was £3,887,283. The advances were chiefly for the relief of agriculturists, but partly for the improvement of land and for loans to co-operative credit societies. No less than £969,575 was advanced for relief in the United Provinces alone

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

The land revenue of Bengal remains fairly constant, as most of the province Bengal. is under permanent settlement. The revenue demand for 1908–9, excluding arrears, amounted to £1,925,822, including £1,525,020 from 114,153 permanently settled estates, £206,850 from 10,466 temporarily settled estates, and £193,952 from 1,530 estates under the direct management of Government. As in 1907–8, bad harvests in certain districts and high prices of food-grains adversely affected the collections, and the percentage of collections on demands, 96·0 per cent., was the lowest, and the outstanding balance, £75,386, the highest, for five years. Money orders are increasingly used by the petty zemindars for the remittance of land revenue and cesses. The number of estates which became liable to sale for non-payment of Government revenue was 14,785, but only 656, or 4·4 per cent., were actually sold. Under the Public Demands Recovery Act, 141,013 certificates were filed for recovery of arrears of revenue, cesses, &c., compared with 139,044 in 1907–8 ; payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 3,546 cases, and warrants were issued in 1,186 cases, 33 defaulters being imprisoned. Advances under the Loans Acts reached the large sum of £301,055, the greater part being under the Agriculturists' Loans Act. The increase is the result of the Government policy of using loans as a means of alleviating scarcity due to crop failures. The loans are readily taken up by the ryots, and, as a rule, promptly repaid.

In the United Provinces, as was inevitable in a famine year, the land revenue United collections for the year ending 30th September 1908 fell far short of the demand. Provinces. The fixed land revenue demand in 1907–8 was £4,296,309. The collections were short of the demand by about £1,022,000, the greater part of which was either suspended or remitted. The real arrears were relatively small. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £683,042) and the owners' rate (receipts, £14,525), which constitute payments for irrigation, besides cesses, &c. The collections on account of canal rates rose with an increase in the area irrigated. There was, owing to famine, a great increase in advances under the Land Improvement Loans Act and the Agriculturists' Loans Act, the total amounting to the large sum of £1,871,000. The loans were chiefly for the purchase of seed and plough cattle and for the repair or construction of wells. As regards coercive processes, the preference for citations over writs of demand still continued. The

* Mostly from Bombay. † Mostly from Burma. ‡ From Bengal and Eastern Bengal and Assam.

LAND REVENUE.

number of warrants for arrest (4,685) showed a considerable increase. Attachment of moveable property was not abnormal, and only in 74 cases was the attached property sold. There were no sales of immoveable property.

Punjab.

The year was one of short rainfall, widespread failure of both harvests, high prices, and scarcity. The area matured was only 71 per cent. of the quinquennial average. The fixed land revenue demand for the year to 30th September 1908 amounted to £1,377,000, or about £8,000 more than in 1906–7, owing to new settlements. No less than £268,962, or about one-fifth, of the fixed land revenue demand was suspended. The "fluctuating" revenue amounted to £268,579 in 1907–8. The "fluctuating" system in which the demand varies with the crop is applied for the most part to canal-irrigated and riverain tracts. Miscellaneous revenue, mostly derived from sales of Government estates, amounted to £77,500. Coercive processes for collection of revenue showed a decrease. Agricultural advances amounted to £148,700.

North-West Frontier Province.

In 1907–8 the harvests were below the average, but the revenue increased and all arrears were promptly realised. The demand was increased by £8,100, owing to new assessments. Of the total demand of £122,076 on account of fixed land revenue, 99½ per cent. was realised. Fluctuating and miscellaneous land revenue, between them, contributed £23,062, compared with £27,450 in 1906–7. The system of fluctuating assessments is generally appreciated. Coercive processes were much fewer, the number of writs and warrants of demand falling from 2,535 to 1,789. The reduction was mainly in Peshawar district. In no case was imprisonment necessary. The agricultural advances made during the year amounted to £5,800.

Burma.

The agricultural year to 30th June 1909 was excellent throughout the province; cultivation extended (partly owing to irrigation), and the rice crop was a record one. Upper Burma recovered after a series of bad harvests. The totals of revenue (exclusive of arrears demand) under the various heads for the last two years are shown in the margin. The current land revenue demand amounted to £1,748,757, of which about 99 per cent. was collected. Under each head there were increased receipts, and collections were promptly made without undue recourse to coercive processes. The increase in land revenue was due to extensions of cultivation and the abundant harvest, and to enhanced rates consequent on revision settlements in Lower Burma. The number assessed for capitation tax was 1,314,495, an increase of 41,038. There was a rise of 5,195 to a total of 761,230 in the number of households assessed to the household tax, or *thathameda*. There was a satisfactory increase in receipts from the river and other fisheries, which had fallen off owing to bad seasons. The heading "other sources" includes receipts from royalties on petroleum, ruby mines, water rate, &c. The petroleum royalties largely increased. As regards coercive processes for the recovery of revenue, the number of defaulters committed to jail was only 28. Capitation tax and *thathameda*, which are levied in Lower and in Upper Burma respectively, are harder to collect without process than land revenue. Coercive processes are mostly issued not on account of contumacy, but because the assessees are not readily found. The amount of agricultural advances rose to £69,750. The sale price and the mortgage value of land both increased.

| | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Land Revenue - | 1,665,511 | 1,748,757 |
| Capitation tax - | 347,337 | 357,987 |
| Household tax - | 267,459 | 273,556 |
| Fisheries - - | 173,185 | 186,353 |
| Other sources - | 172,596 | 202,140 |
| TOTAL - | 2,626,088 | 2,768,793 |

Central Provinces and Berar.

The year to 30th September 1908 was unfavourable and brought widespread hardship to the agricultural classes. The land revenue demand (excluding cesses) was £566,164, but liberal revisions and suspensions reduced the net demand for collection to £426,844. Coercive processes increased, mainly in Nagpur district. The number of defaulters arrested was 106, but none was imprisoned; attachments and sales of property numbered 453 and 13 respectively. Agricultural advances to the large amount of £224,676 were made during the year for the purchase of seed and cattle. In the Central Provinces about one-sixth of the Government waste lands available for cultivation were allotted during the year.

In Berar during the year to 31st July 1908 the land revenue demand, including cesses, amounted to £594,362, a small increase over that of 1906–7; almost the whole of this amount was collected during the year. There was a substantial increase in the number of coercive processes owing to the abnormal conditions of the year, but not a single field was brought to sale. In Berar the agricultural advances amounted to £21,023.

LAND REVENUE.

Eastern Bengal and Assam.

The year 1907–8 was not very favourable agriculturally. The total land revenue demand was £1,250,835, of which 95¼ per cent. was collected. Of the total revenue 52 per cent. was contributed by permanently settled estates, 36 per cent. by temporarily settled estates, and 12 per cent. by estates under direct Government management. Owing to the extension of cultivation the revenue in Assam increased by 2¾ per cent. to £347,221. Miscellaneous land revenue amounted to £66,356. As regards coercive measures, there was a slight increase. The amount of agricultural loans granted, £13,496, was smaller than in the previous year.

Madras.

The south-west monsoon in 1908 was untimely and ill-distributed, while the north-east monsoon was generally in considerable defect. The total crop area exceeded the normal by 1,348,000 acres, or nearly 4 per cent., but the outturn was in no case above normal. The total current demand in 1908–9 for land revenue, including charges for irrigation and miscellaneous receipts, was £4,263,300 (in addition to £428,000 for various cesses), of which 98 per cent. was collected. Of the above demand, £332,000 represents revenue from permanently settled estates, and £50,400 quit-rents from villages held under special tenures, these sums being fairly constant; the remainder, which showed an increase, comes mainly from peasant proprietors. Owing to expansion of cultivation there was some increase in *ryotwari* holdings, which covered 24½ million acres. Remissions amounted to £196,000, of which £86,000 was due to the state of the season. As the result of orders which were passed in 1904 to restrict the issue of demand notices to cases of real necessity, there has been a decline in the number from 6,212,162 in 1903–4 to 1,912,339 in 1908–9, while the number of sales has fallen from 9,479 to 2,600. Advances were larger than in 1907–8, amounting to £66,300 under the Improvement and Loans Acts.

Bombay and Sind.

The harvests in Bombay and Sind were poor during the year to 31st July 1908, and for agriculturists generally the season was a period of stress. The total land revenue demand amounted to £2,745,029. A large sum was under suspension, especially in the Central Division. The number of coercive processes in Bombay proper and in Sind showed a considerable decline. The agricultural advances made in Bombay and Sind amounted to £147,616.

## WARDS' AND OTHER ESTATES.

Wards' Estates.

Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been largely made in the owners' interests. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage their own property, or of persons declared by the local Government, at their own request, to be disqualified for its management. Since that year, various amending Acts have been passed in the several provinces, their general effect being to increase the powers of the Court of Wards with regard to the management of the properties under its charge and the discharge of encumbrances, and to prevent disqualified proprietors from creating new charges without the knowledge of the Court. The duty of the Courts is to manage the estates under their charge in the interests of both proprietors and tenants; to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates; and to spend the surplus income on the improvement of the property in the best attainable way.

At the end of the last agricultural year for which figures were available there were 615 estates under management in the eight provinces that have Courts of Wards. The gross income of the estates was about £2,472,000.

Other Estates.

In Bengal there were 1,530 Government estates under direct management, with a current revenue demand of £193,952. As security for a loan of £333,333 at 4 per cent. to Maharaja Sir P. C. Tagore, the Patildaha estates in Bengal, the property of the Tagore family, have been mortgaged to Government, and are to be managed by officers selected by Government until the loan is repaid. In Eastern Bengal and Assam there were 1,572 Government estates at the close of 1908–9, the number held under direct management being 1,411. In the United Provinces the number of Government estates fell from 633 to 623, most of them being properties bought in under the Bundelkhand Encumbered Estates Act. In Bombay proper there were 552 estates under the management of the Talukdari Settlement Officer and 307 encumbered estates under a special manager in Sind.

# CHAPTER V.

## REVENUE FROM TAXATION AND OPIUM.

| | |
|---|---|
| SALT. | CUSTOMS. |
| EXCISE. | INCOME TAX. |
| PROVINCIAL RATES. | REGISTRATION. |
| STAMPS. | OPIUM. |

*(For further details see Statistical Abstract for British India, Tables 43, 45 to 47, 50 to 58, and 61 to 66.)*

**Revenue from Taxation.**

Of the eight heads of revenue dealt with in this chapter, seven comprise the tax revenue of India, and furnish about 45 per cent. of the total net revenue of the Indian Government. To this the chief contribution is made by excise, the yield of which has increased in recent years, mainly on account of higher rates of duty and stricter supervision. Next come customs and stamps, both of which have benefited by the great progress in trade and industry. The salt revenue has diminished, owing to reductions, amounting to 60 per cent., in the rate of duty since March 1903. Receipts from income tax and registration, though small, are increasing.

**SALT.**

## SALT.

**General.**

From time immemorial a tax on salt has been a source of revenue in India. The salt revenue is raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from 3 annas (in Burma) to $3\frac{3}{4}$ rupees (in Bengal) per maund of $82\frac{2}{7}$ lbs. In 1882 a general duty of Rs. 2 per maund was introduced (except in Burma) and raised in 1888 to Rs. $2\frac{1}{2}$. In 1903 the rate of Rs. 2 was reverted to, and in March 1905 the tax was further reduced to Re. $1\frac{1}{2}$ per maund. A further reduction to one rupee (or 1*s.* 4*d.*) per maund was effected from the 20th March 1907. In Burma the rate has remained since 1888 at one rupee per maund on imported salt, and a system has been introduced by which the greater part of the salt which is locally produced pays a duty of 8 annas per maund. The Indian salt duty is now more uniform, and lower on the average, than at any former time. The reduced duty and increased facilities for transport have made salt cheaper than ever before.

| Year. | Issues of Salt in 100,000's of Maunds. | Duty per Maund. | Gross yield of Duty. |
|---|---|---|---|
| | | Rs. | 000 £ |
| Average, 1898-9 to 1902-3 | 360 | $2\frac{1}{2}$ | 6,002 |
| 1903-4 | 376 | 2 | 5,250 |
| 1904-5 | 394 | 2 | 5,355 |
| 1905-6 | 407 | $1\frac{1}{2}$ | 4,376 |
| 1906-7 | 431 | $1\frac{1}{2}$ | 4,363 |
| 1907-8 | 444 | 1 | 3,339 |
| 1908-9 | 454 | 1 | 3,276 |

The successive reductions of duty have led to a large increase in consumption throughout India, as will appear from the table in the margin, the increase in the five years since the reductions began being 24 per cent. Although, however, consumption has grown, the sacrifice of annual revenue (about £2,656,000) cannot be made good by enhanced consumption within any period worth considering. Owing partly to a wider adoption of the credit system there was a decrease in the revenue receipts for 1908–9. The gross yield of the salt duty during recent years is shown in the table. The yield in 1908–9 was £3,276,159, of which nearly 29 per cent. was derived from imported salt. The charges amounted to £343,108, exclusive of £254,000 paid under treaties in the form of compensation, principally to Native chiefs who have assigned their salt sources to the Government of India.

The principal sources of salt supply are the sea coast, especially in Madras and Bombay, where salt is manufactured by the evaporation of sea water; the salt lakes and pits of Rajputana; the salt mines of the Punjab and North-West Frontier Province; and importations from abroad, which supply most of Bengal, Eastern Bengal and Assam, and Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. Some of the salt sources belong to, or are worked under the direct control of, the various Local Governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt is unrestricted. Manufacture is not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, on the coast of Bengal.

**Northern India.**

The salt sources under the control of the Northern India Salt Department comprise: (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State; and (2) the Punjab sources, including

SALT.

the Mayo, Warcha and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. The most important sources are the Sambhar Lake and the Mayo mine. Since 1870, when the lake was leased by the Government of India, over 141 million maunds of salt have been taken from it, and the financial results show a total credit balance of £287,000. Owing to fears that the Sambhar salt was becoming exhausted, a long trench for obtaining subterranean brine was excavated through the bed of the lake in 1906. The trench has proved an undoubted success, and it is being extended, while combined storage and evaporating reservoirs are under construction. The Sambhar salt is sold at a uniform price of 4 annas per maund, with a charge of 3 pies for clearance; the sales in 1908–9 amounted to 5,198,000 maunds. The price of Didwana salt is 9 pies; and of Pachbadra salt 1½ annas, with a charge of 3 pies for clearance. The sales from the Mayo and other Punjab mines amounted to 3,202,456 maunds. The Mayo salt is sold for 9 pies per maund, or, at the Khewrah depôt, for one anna. Kohat salt, on the average, costs about 9 pies. The gross revenue of the Northern India Salt Department in 1908–9 was £757,265, or £7,607 more than in 1907–8, while the total charges amounted to £77,988. Rumours of a further reduction in the duty adversely affected the sales. The total quantity issued by the Department for consumption was 9,523,039 maunds, as compared with 10,002,086 maunds in 1907–8. The following table shows the provinces and states mainly supplied by the Department, with the salt consumption and the average retail price of salt in each in 1908–9:—

| Province or State. | Total Consumption. | Average Retail Price per Maund. | Average Consumption per Head.* |
|---|---|---|---|
| | Maunds. | Rs. A. P. | Lbs. |
| North-West Frontier Province | 197,436 | 2 0 7 | 7·64 |
| Punjab | 2,623,425 | 2 1 3 | 8·72 |
| Kashmir and Jammu State | 301,985 | — | 9·28 |
| United Provinces | 5,284,399 | 2 9 7 | 8·97 |
| Behar (Bengal) | 3,377,770 | 2 7 11 | 11·47 |
| Central Provinces and Berar | 2,695,532 | 2 12 4 | 15·16 |
| Rajputana | 1,133,040 | 2 5 10 | 9·14 |
| Central India | 1,157,880 | 2 7 3 | 11·04 |

* No allowance has been made for increase in population since the census of 1901.

The Department issued 44,062 licences for the manufacture of saltpetre and other saline substances in 1908–9. The refineries produced 597,392 maunds of refined saltpetre.

The number of persons arrested for offences against the salt law was 787, of whom 449 were released. Of 269 persons convicted 30 were imprisoned.

Bengal.

The salt consumed in Bengal is imported from abroad or from other parts of India. In the maritime tracts salt production is prohibited, owing to the difficulty of preventing illicit manufacture. The quantity of salt imported by sea in 1908–9 was 13,910,750 maunds, an increase of 4·6 per cent. upon 1907–8. About 1,180,750 maunds of Madras salt were imported into Orissa by rail. The average wholesale price of salt, including duty, at the chief marts of Bengal was about Rs. 2 1/2 per maund, having decreased by about 1⅔ annas as compared with 1907–8. The net amount of salt consumed in the province rose to 8,506,450 maunds, as against 8,281,920 maunds in 1907–8. The number of persons convicted of offences against the salt law was 128, a considerable increase on the number for 1907–8. An experimental fish-curing yard was established in February 1909, and duty-free salt was issued to fishermen.

The trade in salt has received a decided impetus by being set free from the restrictions of the *rawana*, or pass, system. Competition has been encouraged, and there has been in some districts a notable increase in the number of retail shops.

Eastern Bengal and Assam.

This province, like Bengal, depends on imported salt. The total consumption in 1908–9 was 3,333,023 maunds, being an average per head of over 8 lbs. The average wholesale selling price per maund, including duty, was Rs. 2.2.5, against Rs. 2.4.11 in 1907–8. There were no offences against the salt law, this being ascribed to the cheapening of salt by the reduction of the duty and to the vigilance of the preventive staff.

Madras.

Originally there was a Government monopoly of salt manufacture in the Madras Presidency, but in 1882 an attempt was made to substitute private manufacture and abolish all Government factories. This, however, did not answer, and in 1888 a certain number of Government factories were established as a check on the prices and

SALT. quality of the privately manufactured (or "excise") salt. The system thus instituted still exists. Of the 65 factories worked during 1908–9, 44 were under private and 21 under Government management. The quantity of salt manufactured was the highest on record, namely, 11,844,846 maunds, of which 7,414,558 maunds was "excise" salt. The imports from Bombay and Goa, mostly to West Coast ports, amounted to 1,428,911 maunds. Excluding the salt used for fish-curing, or sold to the French Government, or exported, the total of salt for consumption was 10,412,849 maunds. The average consumption per head was 19·0 lbs. in the whole Presidency, including Coorg and Mysore, and other Native States (except Travancore and Cochin), as compared with 19·3 lbs. in 1907–8.

The average wholesale price of "excise" salt fell from 3 annas 6 pies to 3 annas 4 pies per maund. Government salt is sold at a fixed rate of 3 annas per maund. The retail prices, including duty, varied from Rs. 1.6.3 to Rs. 2.8.3 per maund, against Rs. 1.6.11 to Rs. 2.14.8 in 1907–8. There was a further decline in offences against the salt laws, ascribed chiefly to the low price of salt consequent on the reduction of duty.

During 1908–9 there were 136 bonded yards open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured declined to 54,982 tons, the season being less favourable for fishing, and 808,501 maunds of cured fish left the yards fit for consumption.

Bombay. The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government (Baragra salt), from sea-salt works on the coast, and from abroad, chiefly from Goa. Of the 436 sea-salt works one, at Dharasna, is worked by the Government; the remainder are owned by, or leased to, private individuals. Owing to increased demands for salt, new works are being established. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces, take large amounts of sea salt. The conditions of the year were favourable. The marginal table shows the issues of salt from each source in 1908–9. The consumption per head was 12·18 lbs., as against 12·58 lbs. in 1907–8, the fall being ascribed to the high prices of other commodities.

| | Total Issues. | For Local Consumption. |
|---|---|---|
| | Maunds. | Maunds. |
| Baragra salt - | 2,724,480 | 527,079 |
| Sea salt - | 9,208,168 | 2,289,636 |
| Imported salt - | 375,873 | 287,331 |
| Total - | 12,308,521 | 3,104,046 |

There was a fall in the average market price per maund in the various districts. Owing to the lower duty more salt is being used for agricultural and industrial purposes and as food for cattle. There was a further diminution in offences against the salt laws, ascribed to the lower price of salt.

Thirty fish-curing yards were open at the end of the year. The quantity of fish brought to be cured in bond rose from 183,406 to 248,778 maunds, and the quantity of cheap salt issued to fish-curers from 55,641 to 73,639 maunds.

Sind. The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and from importation. The quantity consumed during the year was 395,059 maunds. The consumption per head fell to 10·12 lbs. from 10·23 lbs. in 1907–8. The average market price was Rs. 1.14.6. It is believed that the consumer is receiving the full benefit alike of the reduction of duty and of the abolition of licences, which has enabled many petty dealers to stock salt, while their competition has lowered prices. Only one fish-curing yard was worked. Salt offences declined.

Burma. One rupee per maund is levied on salt imported into Burma. All salt locally manufactured formerly paid an excise duty levied by a composition rate on vessels used for boiling brine; but a system of levying duty at the rate of 8 annas per maund on actual output has now been introduced into all districts where any large quantity is produced. An inquiry into the Burma salt industry was continued during the year. Duty was paid in 1908 on 1,593,703 maunds of imported salt, on which Burma mainly depends, and on 649,090 out of 765,046 maunds manufactured locally in districts under the system of direct taxation. The estimated output of other districts was 88,083 maunds. The estimated consumption was 2,330,876 maunds, of which 32 per cent. was Burma salt. The statistics relating to local production of salt are untrustworthy, but the returns show that it tends to increase. The imports of foreign salt, especially Aden salt, have largely increased. The average prices of both foreign and local salt vary greatly in different districts. There was an increase to 295,095 maunds in imports of salted fish, on which a duty of 6 annas per maund is levied.

## EXCISE.



General.

The excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and hemp drugs. There is no excise duty on tobacco or betel. Opium, which is a common household drug, is usually taken in the form of pills or is dissolved in water and drunk. Opium smoking is not extensively practised. The excise revenue from opium is chiefly composed of duty and vend fees, and the rate of duty varies with local conditions, being highest where smuggling is most difficult. The right of retail vend is usually sold by auction. With regard to hemp drugs, cultivation is restricted and controlled; a duty is paid before issue, and retail sale is under licences, which are usually sold by auction.

The considerable growth of the excise revenue in recent years is due mainly to higher rates of duty and stricter excise control, and does not indicate a corresponding increase in consumption, although some increase has occurred through the expansion of population and the greater prosperity of certain classes. There has been a large and continuous reduction in the number of country spirit shops in the principal provinces. The Government consider that shops should not be so few that each has a monopoly over a wide area, lest prices should be unduly raised and illicit practices encouraged. Measures are being taken both to redistribute and to reduce the number of existing shops, as well as to improve the quality of the liquors sold.

In 1905, the Government of India convened a Committee to inquire into excise administration in respect of intoxicating liquors, and to propose reforms. In a Resolution, dated September 1905, they declared, in appointing the Committee, that they had no desire to interfere with those who use alcohol in moderation; but their settled policy was to minimise temptation for those who do not drink, and to discourage excess amongst those who do. The most effective way of forwarding this policy was to make the tax upon liquor as high as possible without stimulating illicit sale and production, and without driving people to substitute deleterious drugs for alcohol, or a more for a less baneful form of liquor. The Committee's report, dated 4th July 1906, was published as a Parliamentary Paper [Cd. 3327]. The orders passed thereon by the Government of India were also published as House of Commons Papers (142 and 209 of 1907 and Cd. 3816). As a result of the Committee's recommendations, an extensive programme of reform has been adopted, which is gradually being carried into effect. Some of the principal features of the Indian excise systems, with reference to the Government of India's recent orders, were outlined in the Moral and Material Progress Report for 1907–8.

The normal excise system for liquors, which will eventually prevail over the greater part of British India, is based on the grant by contract of the right of wholesale supply and the sale by auction of the right of retail vend. By these means the dangers of unrestricted competition for the supply of liquor and the attendant difficulty of proper supervision are avoided, while the largest possible part of the monopoly profits arising from these restrictions is secured to Government.

The following table shows the excise revenue for 1908–9 and 1907–8 under the different heads, as given in the Finance and Revenue Accounts:—

| Year. | Licence and Distillery Fees and Duties. | | | | | Duty on Indian Consumption of | | Fines, Confiscations, Miscellaneous. | Total Revenue. | Charges. | Net Revenue. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Foreign Liquors, &c. | Country Spirits. | Toddy. | Opium and its Preparations. | Other Drugs. | Opium. | Ganja. | | | | |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| 1908–9 | 351,407 | 3,373,062 | 1,027,493 | 255,370 | 392,280 | 734,848 | 234,172 | 20,996 | 6,389,628 | 390,552 | 5,999,076 |
| 1907–8 | 335,771 | 3,315,496 | 974,155 | 223,417 | 364,431 | 757,403 | 225,443 | 18,094 | 6,214,210 | 295,628 | 5,918,582 |

A sum of £692,740 was yielded by customs duties* on exciseable liquors imported into India during the year. The net revenue from liquors and drugs (*i.e.*, total excise revenue less charges, *plus* Customs duties on exciseable liquors) for 1893–4, 1903–4, and the last three years is given in the margin. In 1908–9 it amounted to rather less than sevenpence per head of the population effected.

| | £ |
|---|---|
| 1893–4 | 3,971,000 |
| 1903–4 | 5,291,000 |
| 1906–7 | 6,187,000 |
| 1907–8 | 6,585,000 |
| 1908–9 | 6,692,000 |

* A duty is levied on all imported spirits, wines and beer, and credited to the head of Customs. The import duties in 1908–9 were Rs. 7 per gallon on proof spirit; Rs. 10 per gallon, irrespective of strength, on liqueurs; Rs. 11 per gallon, irrespective of strength, on perfumed spirits; Rs. 2½ per gallon on sparkling wines and Re. 1 per gallon on other wines; and 2 annas per gallon on beer. Imported opium is subject to a duty of Rs. 24 per seer, while other narcotic drugs pay the general import duty of 5 per cent. *ad valorem*.

**Excise.** The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province :—

| PROVINCE. | Population of Excise Area by Census of 1901. | Number of Persons per Retail Shop licensed in 1908-9 for the Sale of | | | | Net Excise Receipts per 10,000 of Population in Rupees. | |
|---|---|---|---|---|---|---|---|
| | | Country Spirit. | Country Fermented Liquor. | Opium and its Preparations. | Narcotic or Intoxicating Drugs, other than Opium. | In 1907-8. | In 1908-9. |
| Bengal | 50,722,000 | 16,924 | 3,804 | 37,433 | 17,176 | 3,206 | 3,191 |
| United Provinces | 47,671,000 | 9,221 | 15,422 | 40,606 | 12,881 | 1,310 | 1,708 |
| Punjab | 20,408,000 | 21,850 | 497,753 | 21,302 | 29,836 | 2,013 | 2,273 |
| North-West Frontier Province | 2,120,000 | 55,800 | — | 25,547 | 23,825 | 1,188 | 1,310 |
| Burma | 9,188,000 | * | 7,901 | 72,924 | — | 7,499 | 7,280 |
| Central Provinces and Berar | 11,366,000 | 2,587 | 20,344 | 10,924 | 10,824 | 5,937 | 5,322 |
| Eastern Bengal and Assam | 39,298,000 | 41,220 | 4,879 | 34,783 | 24,853 | 2,164 | 2,225 |
| Madras | 38,228,000 | 3,386 | 2,141 | 34,189 | 58,371 | 5,736 | 6,154 |
| Bombay | 15,525,000 | 6,381 | 1,598 | 19,191 | 27,047 | 8,962 | 8,885 |
| Sind | 3,211,000 | 11,468 | 802,728 | 12,163 | 6,247 | 5,346 | 5,275 |

* For distillery spirits, 191,425 ; for outstill spirits, 164,078.

**Bengal.** In Bengal the total excise revenue for the last two years, according to the departmental returns, has been as shown in the margin. The decrease in 1908–9 under country spirits was only partially compensated by increases under opium and hemp drugs. The excise revenue per head is about fivepence. Among various reforms adopted during the year may be mentioned :—(1) The abolition of passes for the transport of imported liquor, (2) a further extension of distillery areas, (3) an increase of the rate of duty on country spirit in 11 districts or parts of districts, (4) the abolition of 16 country spirit shops in Calcutta, (5) the reduction of the limit of retail sale of country spirit from 12 to 6 bottles in Calcutta. The last two reforms were effected on the recommendation of a committee appointed to inquire into the number and location of spirit shops in Calcutta. In 28 large towns local committees, largely composed of non-official members, were appointed to advise collectors as to the licensing of liquor shops for the ensuing year. In some places little interest was shown in the proceedings, but it would be premature to express an opinion on the work done. One noteworthy fact was the reduction of *tari* shops in Bhagalpur from 93 to 20 on the advice of the local committee. District officers are making a survey of existing country spirit shops, in order to determine whether or not they are in excess of requirements. A new Bengal Excise Act was passed in 1909.

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Country spirits | 626,738 | 599,036 |
| Foreign liquors and rum | 30,126 | 31,222 |
| Fermented local liquors, toddy, and rice-beer | 120,096 | 123,757 |
| Opium | 174,614 | 181,303 |
| Hemp drugs | 185,361 | 196,544 |
| Miscellaneous | 1,603 | 1,524 |
| Total | £1,138,538 | £1,133,386 |

Calcutta again contributed more than one-fourth of the total revenue from country spirit. In Burdwan and Sambalpur there was an increase in the convictions for drunkenness.

The sale and consumption of opium increased. The smuggling of opium to Burma continues to be practised on a large scale. The supply of opium from the Treasury to licensed shops in Calcutta and the vicinity has therefore been restricted. The abnormal consumption in Orissa has been checked, but smuggling is reported. No shops are licensed for selling opium prepared for smoking, but the habit, which is confined for the most part to low-class Muhammadans, and which has become prevalent in Calcutta, and in Midnapore and Orissa, has been specially reported upon, and it has been proposed to render illegal all gatherings for the purpose of smoking. The importation and sale of cocaine have been limited to qualified and duly licensed persons ; 260 licences were issued during the year. The number of persons convicted of illicit sale and possession of cocaine was 157, of whom 123 were in Calcutta. Restrictions have also been imposed on morphia and novocain. An increased consumption of *ganja* is ascribed to a fall in the wholesale price.

There was a decrease in the number of persons convicted in Bengal for excise offences, especially for illicit distillation of country spirits.

EXCISE.

In the United Provinces the gross excise revenue for the last two years has been as shown in the margin. The excise revenue per head is about three pence. There was a further decrease, amounting to 15 per cent., in the consumption of country spirits, ascribed to the failure of the harvest and the consequent high prices of food grains, to the abnormally high price of the raw material of distillation, to the epidemic of malarial fever, and to restrictive measures. Owing to arrangements with Rampur for establishing the central distillery system in that State, the out-still area was contracted in adjoining districts. The receipts from opium and hemp drugs showed little variation.

United Provinces.

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Country spirits and fermented liquors | 387,330 | 347,419 |
| Foreign liquors and rum | 29,017 | 30,355 |
| Opium | 56,496 | 56,989 |
| Other drugs | 126,438 | 124,562 |
| Miscellaneous | 261 | 184 |
| Total | £599,542 | £559,509 |

There was a decrease in prosecutions, which was most marked in cases of illicit distillation. There was a number of cases of illicit trading in opium and cocaine.

The year was one of preparation for the introduction of the contract supply system, which, from 1st April 1909, was introduced into one-third of the province. The issue of proof spirit has been abolished, and spirit of 50° under proof besides spirit of 25° under proof has been issued. Local committees were appointed for advising upon the number and location of liquor shops in towns of over 20,000 inhabitants. The number of shops for the retail sale of country spirit was reduced from 5,488 to 5,170, and of *tari* shops from 3,632 to 3,091. Proposals have been made for enhancing the sale price of opium. A new Excise Bill is under consideration.

Punjab.

The gross excise revenue in the Punjab for the last two years has been as shown in the marginal table. In 1908–9 there was a considerable increase in receipts, due chiefly to an increase in retail vend fees for country spirit and opium, resulting from keen competition at auctions. In eight years the income has doubled, in spite of a high still-head duty (raised still higher from 1st April 1909) and a large reduction in the number of retail licences. The quantity of country spirits sold was much smaller. There is a good deal of illicit distillation, especially among the Jats of the Central Punjab, among whom drunkenness and lawlessness are said to have increased. During 1908–9 the number of retail licences for country spirit was reduced by 32. A new Excise Bill is being drafted. Local committees are being formed in the large towns to advise as to the number and location of liquor shops.

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Imported liquors and beer | 20,780 | 29,320 |
| Country spirits | 171,662 | 187,350 |
| Opium | 51,587 | 59,249 |
| Other drugs, &c. | 36,987 | 41,186 |
| Total | £281,016 | £317,105 |

There was a further decrease in the number of licensed opium shops, and the increased revenue was due to higher prices paid for licences. The sale of opium has been separated from that of hemp drugs. Bengal or "excise" opium is being substituted for other kinds hitherto consumed; poppy cultivation in the Punjab (except in certain small areas) being abolished and the importation of Malwa opium stopped. Licences for the retail sale of hemp drugs were again reduced. The consumption of both *charas* and *bhang* is diminishing.

North-West Frontier Province.

The excise receipts amounted in 1908–9 to £19,103, as against £17,313 in 1907–8, the increase of 10 per cent. being mainly in opium and country spirits. The gross receipts were: Imported liquors, £2,339; country spirits, £6,037; opium, £6,092; other drugs, &c., £4,635. In this province, where illicit distillation is practically unknown, and drinking is confined to large towns, efficient excise control is not difficult. The number of country spirit shops has been reduced in three years from 51 to 36. Several reforms were instituted on 1st April 1909 in consequence of recommendations of the Excise Committee. Others are under consideration.

Burma.

The gross excise revenue during the last two years was as shown in the marginal table. The heavy decline in opium revenue was due mainly to the policy of restricting sales at the shops to the ascertained actual consumption of buyers, and secondarily to the fall in licence fees. It is feared that the decline in licit sales was counter-balanced by supplies of contraband opium, of which considerable quantities were seized by the preventive staff. 124,000 tolas were seized. The smuggling of cocaine increased. There was a large rise in the licence fees for the vend of *tari* and for the manufacture and sale of country

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Imported liquors, &c. | 94,922 | 95,997 |
| Country spirit | 14,378 | 14,192 |
| Toddy and rice-beer, &c. | 135,255 | 152,973 |
| Opium | 314,967 | 281,034 |
| Fines, &c. | 2,674 | 3,491 |
| Total | £562,196 | £547,687 |

EXCISE. fermented liquor. An investigation was made into the number and location of liquor shops, and superfluous ones were suppressed. During the year excise committees were appointed in 10 towns to advise on the number of licences and location of liquor shops, and local opinion was also consulted elsewhere, while rules were framed to secure the supply of pure liquor of guaranteed strength and quality, to improve the arrangements for the vend of liquor, and to prevent its sale to unsuitable persons. An inquiry has been instituted as to whether means can be devised to lessen the increasing consumption of liquor among Burmans by moral influences and appeal to the precepts of their religion. The contract distillery system is to be still further extended. Shops for the sale of foreign and country liquors have been separated. A new Excise Bill is under discussion. Various improvements in the methods of working of distilleries are in progress. The control over retail sales of opium was strengthened, and the prices of opium were enhanced. More effective measures for dealing with habitual traffickers in illicit opium were under consideration.

Central Provinces and Berar.

The excise receipts for 1908–9, as compared with those for 1907–8, were as shown in the margin. Adverse agricultural conditions at the time of the annual auctions, high prices, an unfavourable year for marriages, and, in some parts, a political temperance movement aided in diminishing consumption, and the revenue fell sharply, especially in Berar and adjacent districts. The consumption of country liquor was less by 326,000 gallons. The conditions of the year prevented any general raising of duty rates or changes of system, though duty rates were enhanced in five districts, while the number of outstills was reduced from 1,078 to 961, and the number of liquor shops from 4,982 to 4,569.

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Country spirits and toddy | 365,652 | 314,355 |
| Opium | 118,956 | 120,818 |
| Hemp drugs | 28,512 | 29,845 |
| Miscellaneous, including foreign liquors | 4,792 | 5,182 |
| Total | £517,912 | £470,200 |

The contract supply system has been extended, and 16 out of 22 districts are now wholly or mainly under that system. Opium and *ganja* smuggling continues to cause much trouble to the district authorities and loss to Government. A new Excise Bill is under consideration.

Eastern Bengal and Assam.

The excise revenue for the last two years has been as shown in the margin. The increase in 1908–9 was mainly due to favourable settlements. The revenue results of the substitution of the contract distillery system for outstills were disappointing. Increased receipts from country spirit and opium were accompanied by diminished consumption. There was a larger consumption of *ganja*, due to the abundant crop and comparatively low prices. The number of country spirit shops has been reduced in three years from 789 to 682, of *ganja* shops from 1,165 to 983, and of opium shops from 1,203 to 776. Further reductions are contemplated. Rules for ascertaining public opinion on the licensing of shops have been put in force. During the year under report the contract distillery system was extended to six more districts. The system, where in force, has led to an improvement in the quality of the liquor and to a diminution of drunkenness.

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Imported liquors and rum | 8,035 | 9,652 |
| Country spirits | 136,796 | 144,811 |
| Opium | 189,121 | 188,964 |
| Hemp drugs | 114,355 | 120,862 |
| Miscellaneous, including toddy, &c. | 4,943 | 4,646 |
| Total | £453,250 | £468,935 |

The treasury price of opium was raised from Rs. 37 to Rs. 40 per seer in five districts, with effect from 1st April 1909. The bulk of the opium consumption is in the Assam Valley districts, but in 1908–9 there was a slight decrease in the consumption, which had been increasing during recent years.

Madras.

The gross excise revenue during the last two years was as shown in the margin. The contract distillery supply system is in force over the greater part of Madras, but in some small tracts non-distillery systems are in force. Over nearly the whole of the Presidency a tree tax is imposed on all palm trees tapped for fermented toddy, while shops for the retail sale of toddy are separately sold by auction. Many changes were introduced into the excise administration in 1908–9 in pursuance of the policy of reform, while others are to be effected. The character of wholesale and retail licences was altered, and the fees payable for them were

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Country spirits | 664,238 | 765,194 |
| Toddy | 716,719 | 770,534 |
| Foreign liquors | 32,561 | 32,987 |
| Opium | 62,478 | 68,522 |
| Other intoxicating drugs | 32,151 | 34,718 |
| Miscellaneous, including beer, &c. | 21,404 | 17,408 |
| Total | £1,529,551 | £1,689,363 |

enhanced. The sale of liquor and intoxicating drugs to minors and to intoxicated persons was prohibited. The number and location of liquor shops were revised. The duty on country spirits was raised in five districts, and the tree tax was increased in one district. The enhanced receipts were due to a greater consumption (9 per cent.) of country spirits, to larger collections under tree tax, and to increased rentals. EXCISE.

The use of opium is almost restricted to the districts in the north-east of the Presidency, and to the Madras Town Circle. The quantity consumed, excluding that issued to Native States, was 1,309 maunds, compared with 978 maunds in 1907–8.

The excise revenue from Bombay (including Sind and Aden) during the last two years was as shown in the margin. The increase in country spirits was chiefly due to the extension of the contract supply system. The revenue from toddy declined, but the consumption was larger. In Sind and Bombay City there is a growing taste for foreign liquors among the well-to-do classes. Rates of still-head duty were raised only in Bombay City and in the Konkan. In eleven districts the contract distillery and single shop auction system were introduced, making a total of 16 districts in which it now exists. The number of shops for the sale of liquors (except toddy) and drugs has been reduced. The increased receipts from opium and intoxicating drugs are ascribed to better administration. Bombay.

| Gross Receipts from | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Country spirits | 817,801 | 821,282 |
| Toddy | 122,195 | 121,106 |
| Foreign and Indo-European liquors | 13,957 | 22,595 |
| Opium | 70,968 | 85,891 |
| Other intoxicating drugs | 60,554 | 66,515 |
| Miscellaneous items | 5,290 | 6,728 |
| Total Excise Revenue | £1,090,765 | £1,124,116 |

## PROVINCIAL RATES.

PROVINCIAL RATES.

Since 1904–5 many cesses levied under the head of Provincial Rates have been abolished. In 1907–8 a further reform was adopted by the exclusion from the imperial accounts of the transactions of District Boards and of certain other local funds, which are raised locally, mainly for local purposes, and chiefly managed by local bodies. Where the revenues are under the orders of Government, the accounts have been absorbed in the Imperial or Provincial accounts. Where the income and expenditure are clearly under local control, the fund has been excluded, except in the case of funds specially created for local purposes and administered by Government officers in an *ex-officio* capacity. The net revenue from Provincial Rates amounted in 1908–9 to £529,200, made up chiefly of the cess on lands levied in Bengal and Eastern Bengal and Assam for roads, schools, &c., and of the appropriation by the United Provinces from local rates for the payment of rural police in the Agra province.

## STAMPS.

STAMPS.

The stamp revenue is derived from two great classes of stamps. Judicial or court fee stamps are provided for by the Court Fees Act (VII. of 1870), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts; non-judicial stamps by the Stamp Act (II. of 1899), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The revenue from the former class increases with the growth of litigation, and that from the latter class with the development of trade and industry. The marginal table gives the gross stamp receipts for 1907–8 and 1908–9. About one-fourth of the revenue is derived from Bengal.

| | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Sale of court fees and stamps | 2,813,783 | 2,906,004 |
| Sale of commercial and other stamps | 1,378,192 | 1,381,740 |
| Fines and miscellaneous | 67,208 | 56,412 |
| Total | £4,259,183 | £4,344,156 |

## CUSTOMS.

CUSTOMS.

General. Special import duties are levied on malt liquors, wines, spirits, arms and ammunition, salt and salted fish, and opium. The duties levied in 1908–9 on alcoholic liquors are given in a footnote on page 33. Petroleum pays one anna per gallon, and articles of iron and steel one per cent. *ad valorem*. General import duties, which had been abolished in 1882, and were re-imposed in 1894, are levied, at the rate of 5 per cent. *ad valorem*. For as many articles as practicable tariff valuations are fixed, and these are revised from time to time, a general revision being made in December of each year. The chief articles on the free list are railway materials, machinery which is

CUSTOMS. worked by power other than manual or animal labour, grain and pulse, living animals, coal, jute, raw cotton, raw wool, books, gold and unset precious stones. On the revival of general duties in 1894 cotton goods were at first exempted, but in December 1894 a 5 per cent. *ad valorem* duty was imposed on imported cotton goods and yarns, while an excise duty of equal amount was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns and thread, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods imported from abroad or manufactured in India at power mills, the products of handlooms being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of 82⅔ lbs. of unhusked rice (about 4*d.* per cwt.). Since the Brussels Convention took effect, sugar produced in any of the countries adhering to the Convention has been subject only to the ordinary tariff rate. Sugar entering India from the Argentine Republic and Denmark remains subject to countervailing duties.

The appended table shows the amount of the customs receipts in 1894–5 and 1895–6, when the changes above-mentioned took effect, and also those for the four most recent years.

| | 1894-5. | 1895-6. | 1905-6. | 1906-7. | 1907-8. | 1908-9. |
|---|---|---|---|---|---|---|
| Sea Customs, import duty: | £ | £ | £ | £ | £ | £ |
| Arms, ammunition, &c. | 10,126 | 11,403 | 10,796 | 10,996 | 13,811 | 10,744 |
| Liquors | 406,355 | 440,669 | 646,286 | 561,401 | 666,721 | 692,767 |
| Petroleum | 213,118 | 270,782 | 241,125 | 246,120 | 294,548 | 351,499 |
| Cotton manufactures | 256,631 | 776,483 | 877,330 | 850,479 | 998,582 | 778,376 |
| Silver bullion and coin | 230,557 | 231,859 | 194,685 | 260,637 | 341,658 | 417,121 |
| Other metals | 135,078 | 168,641 | 202,911 | 226,776 | 299,580 | 309,877 |
| Sugar | 630,450 | 686,725 | 266,216 | 284,936 | 295,431 | 340,051 |
| Other articles | | | 845,124 | 870,143 | 1,040,381 | 1,008,780 |
| Export duty on rice | 594,017 | 609,581 | 751,115 | 681,816 | 664,772 | 535,960 |
| Miscellaneous | 6,694 | 1,770 | 21,169 | 24,871 | 23,612 | 19,581 |
| TOTAL Sea Customs | 2,483,026 | 3,197,913 | 4,056,757 | 4,018,175 | 4,639,096 | 4,464,756 |
| Land Customs | 15,884 | 13,397 | 20,059 | 20,351 | 28,113 | 26,932 |
| Excise duty on cotton manufactures | 6,897 | 40,632 | 178,071 | 190,947 | 223,730 | 233,232 |
| Miscellaneous | 10,773 | 18,672 | 17,523 | 17,290 | 19,087 | 14,124 |
| TOTAL NET CUSTOMS REVENUE | 2,516,580 | 3,270,614 | 4,272,410 | 4,246,763 | 4,910,026 | 4,739,044 |

The receipts from import duties in 1908–9 show a decrease, chiefly owing to the much smaller imports of cotton manufactures. Liquors (which had fallen off in 1906–7 owing to enhanced duties), silver, petroleum, sugar, &c., produced more revenue, but the yield of the export duty on rice again fell, mainly owing to the home demand for rice. The growing receipts from the excise duty on cotton goods made in power mills are a satisfactory indication of the prosperity of the weaving industry. Excluding revenue from salt, which is not credited to customs, about two-thirds of the revenue from imports is derived from five heads—cotton manufactures, liquors, silver, sugar, and petroleum.

## INCOME TAX.

INCOME TAX. General.

The Income Tax Act (II. of 1886), applicable to the whole of India, took the place of local Acts under which various licences were required for the exercise of trades or industries. Its principal provisions are that all incomes from salaries and pensions or from interest on securities, if amounting to Rs. 2,000 per annum, shall pay 5 pies in the rupee (equal to 6¼*d.* in the £); that incomes less than Rs. 2,000 shall pay 4 pies (5*d.* in the £); that companies shall pay 5 pies in the rupee on their net profits; and that incomes under Rs. 2,000 derived from other sources shall pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, and 5 pies in the rupee on incomes of Rs. 2,000 and upwards. All incomes of less than Rs. 1,000 (£66⅔) a year were exempted by an amending Act (XI. of 1903), which substituted that taxable minimum for the former limit of Rs. 500. The tax is not levied on incomes from land or agriculture. Military salaries of less than Rs. 500 a month (£400 a year) are exempt.

INCOME TAX.

The gross revenue from income tax in 1908–9 was £1,553,419, as compared with £1,504,113 in 1907–8. The proportion of revenue derived from the different sources (shown in the margin) varies but little. The number of persons assessed to income tax is only a small fraction of the population, the total in 1907–8 being 262,068. A large proportion of the revenue is collected in Calcutta and Bombay. Income tax receipts have increased with the increase in profits and salaries resulting from commercial and industrial activity, as well as owing to improved administration.

| | 1908–9. |
|---|---|
| | £ |
| Ordinary collections | 1,204,624 |
| Government salaries and pensions | 279,812 |
| Interest on Government securities | 60,195 |
| Other items | 8,788 |
| | £1,553,419 |

## REGISTRATION.

REGISTRATION.

General.

The Registration Act (III. of 1877) was in force during 1908 throughout British India, excepting Upper Burma (for which Regulation II. of 1897 still provides a less complete procedure), and certain other tracts. A new Indian Registration Act (XVI. of 1908) came into force on 1st January 1909. For registration purposes, documents are divided into (*a*) those the registration of which is compulsory, or necessary to the validity of the deed, and (*b*) those which are registrable or not at the option of the holder, though liable, if unregistered, to be superseded by registered documents, subject to the equitable doctrine of notice. In the former class are deeds of gift of immovable property, or other documents (excluding wills), which affect rights in such property of a value more than Rs. 100, and, with certain exceptions, annual or longer leases. Optionally registrable documents include those relating to immovable property not comprised in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As regards transfers of immovable property, however, the situation is affected in most provinces by the Transfer of Property Act (IV. of 1882), as amended by Acts of 1885 and 1904. Before 1904 it was in force throughout British India, excepting Burma (outside Rangoon), the Punjab, Sind, and other scheduled districts. Under its provisions all transfers by sale or mortgage of immovable property had to be registered, except that transfers of tangible immovable property of value below Rs. 100 might alternatively be effected by delivery of the property, and the registration of mortgage deeds, in which the value affected did not exceed that sum, was not compulsory. The amendment of 1904 removed the exception relating to small mortgage deeds. Practically all deeds transferring immovable property have now, therefore, to be registered. Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. Mortgages form the largest class of instruments registered. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise about 87 per cent. of all registrations. The number of optional registrations has steadily declined, partly owing to the operation of the amending Act of 1904.

In 1908 there was a further general increase in registration transactions as a result of the amending Act of 1904. The gross registration receipts in 1908–9 were £430,936 as compared with £415,311 in 1907–8; and the cost of the registration offices was £231,809, leaving a surplus of £199,127, against £201,647 in 1907–8. An expansion in the work of registration, especially of mortgages and sales, may be due on the one hand to plague (which affects wills and deeds of gift), high prices, bad harvests, and declining credit, or on the other to settlement operations, the development of new lands, the growth of towns, the expansion of trade, and the general effects of economic progress. The following particulars are taken from the provincial reports for the calendar year 1908.

Bengal.

There was an increase of 11·5 per cent. in the number of deeds registered. This is ascribed chiefly to scarcity and the dearness of food-grains and to settlement operations. In the Chota Nagpur Division there was an abnormal increase in term leases and in perpetual leases, the latter due to the extensive purchase and occupation of lands in Ranchi town by people from all parts.

Eastern Bengal and Assam.

There was an increase of only 3 per cent. in the number of deeds registered, a satisfactory indication of the improved condition of the people.

United Provinces.

There was a growth in the number of compulsory registrations, but a slight decline in optional ones. There has been a great decrease during the past six years in fraudulent registrations, attributed to the system of thumb impressions.

REGISTRATION.

Punjab. There was a large increase in the number and value of registrations of immovable property, mortgages and sales of land being probably necessitated by the scarcity and high prices of 1908. An increase occurred in optional registrations which had been tending to diminish.

North West Frontier Province. The number of registrations is comparatively small, but increases as people become acquainted with the law. More than one-half are in the Peshawar district, where an increased number was partly due to competition for land caused by the projected construction of the Upper Swat Canal. Land transfers were also numerous in Kohat.

Burma. The number of compulsory registrations affecting immovable property showed a decided falling-off in value. There was a marked decrease in numbers and value of deeds of mortgage in Lower Burma, due chiefly to the prohibition of the sale or mortgage of lands held on lease or grant in violation of the conditions of the lease or grant, but an increase in Upper Burma, owing to the extension of irrigation and the expansion of the oil industry. Revised rules under section 8 of the Upper Burma Registration Regulations, 1897, were brought into force in 1908.

Central Provinces and Berar. The number and value of registrations in the Central Provinces and Berar markedly increased, the percentage increase in number being 25 in the Central Provinces and 14 in Berar. Failure of crops and high prices were assigned as the chief cause, though the development of the country was an appreciable factor.

Madras. In Madras the number of registrations of all classes of documents rose to the unprecedentedly high figure of 1,243,806, the increase being chiefly under gifts, sales, and mortgages. The average value of documents also rose.

Bombay. The number of optional registrations in Bombay showed a decrease. There was a considerable growth in mortgages, accompanied by some decline in sales. There was a decline in the tendency to substitute sales for mortgages which had resulted from the Deccan Agriculturists' Relief Act.

OPIUM.

## OPIUM.

General. The opium revenue is raised partly by a monopoly of the production of the drug in Bengal and the United Provinces, and partly by the levy of a duty on all opium exported from Native States. Poppy cultivation in British territory, excepting in certain small areas, is permitted only in parts of Bengal and of the United Provinces, where the crop is grown under the control of Government, which determines the total area to be cultivated each year. The cultivator of opium (known as Bengal opium) in these monopoly districts must receive a licence and is granted advances to enable him to prepare the land for the crop. He is required to deliver the whole of his outturn of crude opium at the fixed price of Rs. 6 per seer to Government agents, by whom it is despatched to the Government factories at Patna and Ghazipur. The relatively small supply of prepared opium required for consumption in India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. The chests become the property of the purchasers immediately after sale, but must be shipped under passes granted by the Board of Revenue and subject to conditions which prevent the opium from being consumed in India. The price obtained at the Calcutta sales, less the cost of production, is the revenue from Bengal "provision" opium. Opium (known as Malwa opium) is grown in Baroda and in some of the Native States of Rajputana and Central India, chiefly Indore, Gwalior, Bhopal, and Mewar. The Government of India interfere in no way with its production or local consumption; but Malwa opium may not pass into British territory, whether for export by sea or for consumption, without a pass, which is granted only on payment of a heavy duty. The duty on Malwa opium intended for export was fixed at Rs. 600 per chest with effect from May 1904, and remained at that figure during the year under report. The pass duty on Malwa opium destined for consumption in British territory is an excise receipt, and is, as a rule, Rs. 700 per chest.

Towards the end of 1906 edicts were issued by the Chinese Government ordering that within ten years the growth and the consumption of opium in China should be suppressed. Proposals were made that the Government of India should co-operate in this object by gradually restricting the amount of opium exported from India to

China. By an arrangement made at the beginning of 1908 the quantity of opium (including Malwa opium) exported from India was limited to 61,900 chests in 1908, 56,800 chests in 1909, and 51,700 chests in 1910. Papers relating to the progress of the opium reforms in China, have been presented to Parliament (Cd. 4967). A report on the proceedings of the Shanghai International Opium Commission of 1909 has also been presented (Cd. 4898). OPIUM.

The opium revenue and expenditure during recent years have been as follows :—

| | 1902-3. | 1903-4. | 1904-5. | 1905-6. | 1906-7. | 1907-8. | 1908-9. |
|---|---|---|---|---|---|---|---|
| Opium Receipts :* | £ | £ | £ | £ | £ | £ | £ |
| Sales of Bengal opium | 3,662,600 | 4,678,371 | 5,079,541 | 4,703,574 | 4,895,505 | 4,401,988 | 4,234,444 |
| Duty on Malwa opium | 661,033 | 871,383 | 749,125 | 569,400 | 553,788 | 620,480 | 1,398,780 |
| Cost of Excise opium, and miscellaneous | 174,805 | 186,291 | 192,833 | 195,806 | 211,235 | 222,518 | 251,564 |
| Total | 4,498,438 | 5,736,045 | 6,021,499 | 5,468,780 | 5,660,528 | 5,244,986 | 5,884,788 |
| Opium expenditure (chiefly in Bengal) | 1,648,483 | 2,225,744 | 1,967,085 | 1,892,441 | 1,913,292 | 1,669,441 | 1,236,088 |
| Net Opium Revenue £ | 2,849,955 | 3,510,301 | 4,054,414 | 3,576,339 | 3,747,236 | 3,575,545 | 4,648,700 |

* Exclusive of the licence fees and duty on opium consumed in India, amounting in 1908–9 to £990,217, included under Excise.

The large increase in receipts in 1908–9 was chiefly due to payment of duty on Malwa opium in advance, with a view to securing priority of shipment in 1909–10.

The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop failed, is shown in the margin, together with the number of chests sold for export and the average price realised during the last five years. High prices of food-crops, increased wages of labour, and bad seasons have discouraged poppy cultivation. At the Government factories, Patna and Ghazipur, 34,084 chests of opium were manufactured during 1908–9, as against 51,608 chests in 1907–8. The number of chests issued to the Excise Department was 6,830. Bengal.

| Year. | Acres. | Chests. | Average Price in Rs. |
|---|---|---|---|
| 1904–5 | 587,140 | 48,000 | 1,587 |
| 1905–6 | 613,995 | 49,200 | 1,436 |
| 1906–7 | 564,585 | 52,800 | 1,391 |
| 1907–8 | 488,548 | 48,900 | 1,351 |
| 1908–9 | 361,832 | 45,900 | 1,384 |

The number of chests of Malwa opium passed at the scales in 1908–9 was 34,787. The quantity imported and lodged in the Bombay opium warehouses was 29,047 chests, as against 17,550 chests in 1907–8; while 1,189 chests were sold for consumption in the Presidency, including Native States. The exports of Malwa opium to China in recent years are stated in the margin. The rise in 1908–9 was due to the anxiety of the Bombay opium merchants to take advantage of anticipated high prices in China owing to the limitation of opium exports, and to their knowledge that in the calendar year 1909 not more than 13,000 chests would be permitted to be exported beyond seas. The average prices for opium in the Bombay market during the year under report, including export duty, were Rs. 1,186 per chest for one-year old, and Rs. 1,305 per chest for two-year old opium, against Rs. 1,271 and Rs. 1,357 respectively in 1907–8. Bombay.

| | Chests. |
|---|---|
| 1904-5 | 18,986 |
| 1905-6 | 14,088 |
| 1906-7 | 13,322 |
| 1907-8 | 16,858 |
| 1908-9 | 20,695 |

# CHAPTER VI.

## AGRICULTURE.

AGRICULTURE. SEASON AND CROP REPORTS. | AGRICULTURAL PRODUCE. CO-OPERATIVE CREDIT SOCIETIES.

The present chapter gives an account of the conditions prevailing in each province during the agricultural year 1908-9, together with some information regarding the outturn of agricultural produce and the progress of co-operative credit societies.

### SEASON AND CROP REPORTS.

Bengal. In Orissa and Chota Nagpur and most of Lower Bengal conditions were generally favourable for the autumn and winter crops, but in Bihar very unfavourable. The weather was also unfavourable for spring crops, especially in North Bihar. The outturn of the autumn crops (exclusive of special crops, such as jute, cotton, and indigo) was only 65 per cent. of the normal, while the winter paddy crop was only 72 per cent. and the sugar-cane crop only 62 per cent. The spring crops of wheat, oilseeds, barley, gram, and rice were only 67 per cent. of normal. As all the three harvests were poor, the food stocks of the province were low. The condition of the cattle was generally good. Agricultural improvements are to be undertaken in certain districts containing water-logged lands or lands subject to inundation by sea-water. The area cropped in 1908-9 was about 38 million acres. About 85 per cent. of the normal cropped area is under food crops. The three rice crops of the year covered 22½ million acres, falling short of the normal by over three million acres. There was a large decrease in the area under jute.

United Provinces. In the west of the province the rains were at first rather too heavy in July and August and too light in September. In the east and north-east the rainfall was deficient throughout, to the detriment of rice and other crops. The winter rains were short and ill-distributed, and the ground was dry for spring sowings. The area cultivated for spring crops was curtailed through the outbreak of a severe epidemic of malaria. The total cultivated area, 35¼ million acres, was about normal, large decreases in rice and sugar-cane and in most of the spring crops being compensated by increases in maize, juar, bajra, small millets, and barley The early food crops turned out satisfactorily, but rice was disappointing, and commercial crops, sugar, cotton, and til were only moderate. Maize and millets were generally good. Wheat, barley, gram, and oilseeds were fair. The year was unfavourable for cattle in regard to disease.

Punjab. The monsoon of 1908 reached the province in good time, giving abundant, and in some districts excessive, rain throughout. The area sown and the autumn crops reaped were above normal. The moisture favoured *rabi* sowings, but severe malarial fever hindered operations. The winter rains were short and ill-distributed, but the soil moisture was sufficient to ensure an excellent spring harvest. The total area sown was about 29¼ million acres, or about 7 per cent. above normal. The proportion of the autumn to the spring harvest was as 44 to 56. Larger areas were placed under jowar, bajra, and cotton, and especially under wheat and gram. Heavy rains favoured rice, bajra, and sugar cane, and the crops were generally good, but jowar, cotton, and maize suffered. The yield of wheat was satisfactory, and the quality good. The outturn of gram was also satisfactory. The cultivation of toria, a very remunerative crop, is developing rapidly in the Central Punjab. The total area of crops sown on irrigated land was again about 10½ million acres, including nearly 6½ million acres served by Government canals. The area irrigated included about 3 million acres irrigated by 250,900 masonry wells and 33,858 non-masonry wells. Cattle suffered a good deal from disease.

*Punjab Canal Colonies.* The actual work of colonisation is practically complete, as all the land available has been allotted. The work of improving communications, providing sanitation, and planting trees, proceeds apace. Improvement in the distribution of water, good prices, and the absence of plague made the year a prosperous one for all the colonies. The Chenab colony, the area of which was a wilderness in 1892, was able in 1907–8 to feed itself and to export £2,000,000 of wheat, toria, and cotton, besides other products. Mule breeding is developing fast. After several bad years of drought, plague, and agricultural pests the Jhelum colony had a bumper wheat crop and a

prosperous year. Special conditions are imposed in the grants in this colony with regard to horse-breeding operations, which have been a marked success. The Chunian colony benefited by high prices for its crops, and the Jhang colony had a fair year. AGRICULTURE.

The monsoon rainfall was generally up to or above normal, and resulted in the cultivation of a large area and a bumper autumn crop. The timely and well-distributed rainfall caused a very large area to be prepared for the spring harvest, but the insufficient winter rains reduced the harvest to rather below the average. Hail did damage in two districts. The total area sown was nearly 2,851,000 acres, or 11 per cent. above the normal, while the area harvested was 2,373,000 acres. Wheat, the most important crop, occupied 36 per cent. of the total cropped area, and the area was 129,130 acres above normal. The outturn was above normal. Fodder was generally sufficient, but the deaths of cattle from contagious diseases were twice as numerous as in 1907–8. North-West Frontier Province.

Up to September the rainfall was ill-distributed and was, on the whole, in excess. Subsequently there was a general shortage of rain. The total cropped area was 28,513,000 acres, an increase of 514,000 acres in the Central Provinces being due to favourable conditions at the time of sowing. Cotton, juar, and til suffered from heavy rain, which did much damage to crops on the ground, especially cotton, the outturn of which was unsatisfactory. There was a large increase in the area under linseed, which did fairly well. The outturn of rice was above normal, and the wheat outturn was much better than in the previous year. Heavy rain and disease caused great mortality among cattle. Central Provinces and Berar.

Throughout the year the rainfall was generally in defect, and almost all the province suffered from drought. The consequences were bad for the high lands, on which the bulk of the crops are grown. The total cropped area was 25¼ million acres, including 16 million under rice. The jute area was 2,286,000 acres, or less than in 1907–8, owing partly to bad weather and partly to low prices of jute. The outturn of rice was 17 per cent. less than in the previous year, while the jute crop was about the average. Eastern Bengal and Assam.

In the greater part of Burma the rainfall was sufficient and evenly distributed, though the generally favourable year was marred at first by partial drought, which especially affected the Mandalay district. Heavy rains in November somewhat injured the rice crop in Lower Burma, and cotton and oilseeds in Upper Burma. There was a large increase in the area cropped, the outturn of crops was good, and the area on which crops failed to mature was much less than in 1907–8. The area of crops rose by 6 per cent. to over 13½ million acres. The area under rice, the principal crop, was 9¾ million acres. The outturn of rice in Lower Burma was 98 per cent. of the normal, and exports increased. The areas devoted to sesamum, jowar, and ground-nuts were considerably larger. The area under rubber rose to 11,844 acres. The new irrigation systems of Mandalay and Shwebo proved very valuable. The year was a very good one for cattle owners. Burma.

The south-west monsoon was untimely and not well distributed, and the north-east monsoon was in considerable defect in most of the districts. The dry weather and hot weather rains, however, were much above the average. The total crop area was 38 million acres, which was about 4 per cent. above normal. The rice crop was above normal, and covered over 10¼ million acres; other food grains were grown on 20 million acres. The area under cotton was nearly 2 million acres. The area under ground-nuts again showed an increase, due to the commercial importance of the crop. Castorseed and indigo fell away. The outturn of crops was in no case at or above normal. There was a considerable increase in the mortality of cattle from disease. Madras.

The autumn rains were on the whole about normal, but the spring rains were in serious defect. The season was poor only in the East Deccan and the Karnatak, where the early rains were in defect and the late rains failed to retrieve the situation. The area under food-grains, particularly jowari, rice, and gram, increased, but non-food crops, especially cotton, diminished. It is satisfactory that preference was everywhere given to food-crops. Sind enjoyed favourable inundation, and the good rainfall caused a large extension in the area cultivated, and a good harvest. The area in Sind under food and non-food crops was much larger. The area under crops in the whole Presidency was 29 millions of acres, of which 4¾ millions were in Sind. About 48 per cent. of the acreage consisted of millets; while cotton occupied 12 per cent. The outturn of crops was generally better than in 1907–8. The area irrigated in Sind rose to nearly 3½ million acres. Bombay

AGRICULTURAL PRODUCE.

## AGRICULTURAL PRODUCE.

*(For further details see Statistical Abstract for British India, Tables 119 to 123.)*

The following table shows the area under the principal crops, in British India, and their territorial distribution, for 1908–9. The crop area is always greater than the area of cultivated land, owing to double cropping. The figures represent thousands of acres (omitting 000).

| Administrations. | Rice. | Wheat. | Millets (Jawar, Bajra and Ragi). | Gram (Pulse). | Other Food-Grains and Pulses. | Total Food-Grains and Pulses. | Oilseeds. | Sugar. | Cotton. | Jute and other Fibres. | Total area cropped. | Net Area cropped, (after deducting area cropped more than once). |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bengal - - | 22,519 | 1,252 | 939 | 856 | 7,217 | 32,833 | 1,723 | 416 | 67 | 625 | 38,303 | 32,532 |
| Eastern Bengal and Assam. | 16,139 | 77 | 11 | 59 | 1,258 | 17,544 | 1,887 | 179 | 47 | 2,328 | 24,939 | 20,194 |
| United Provinces - | 5,892 | 5,759 | 5,908 | 3,926 | 15,055 | 36,540 | 690 | 1,120 | 1,377 | 150 | 42,269 | 35,888 |
| Punjab - - | 720 | 8,397 | 4,883 | 4,227 | 4,401 | 22,628 | 1,434 | 369 | 1,448 | 55 | *29,298 | 25,821 |
| North West Frontier Province. | 45 | 1,030 | 282 | 175 | 880 | 2,412 | 233 | 28 | 54 | 1 | 2,851 | 2,439 |
| Burma - - | 9,798 | 37 | 1,220 | 58 | 623 | 11,736 | 1,293 | 26 | 211 | 1 | 14,007 | 13,653 |
| Central Provinces and Berar. | 4,544 | 2,773 | 5,124 | 1,133 | 5,003 | 18,577 | 2,218 | 21 | 4,176 | 156 | 25,699 | 24,017 |
| Madras - - | 10,305 | 19 | 11,726 | 136 | 8,051 | 30,237 | 2,567 | 182 | 1,989 | 114 | 33,036 | 33,755 |
| Bombay and Sind - | 2,756 | 1,823 | 14,960 | 653 | 3,616 | 23,808 | 2,020 | 67 | 3,550 | 128 | 30,118 | 29,168 |
| Minor Areas - - | 82 | 32 | 149 | 41 | 217 | 521 | 40 | — | 40 | — | 669 | 573 |
| Total 1908–9 - | 72,800 | 21,199 | 45,252 | 11,264 | 46,321 | 196,836 | 14,105 | 2,408 | 12,959 | 3,558 | 246,189 | 218,040 |
| „ 1907–8 - | 75,981 | 18,424 | 41,636 | 6,815 | 43,514 | 186,370 | 12,486 | 2,877 | 13,909 | 4,689 | 237,635 | 210,884 |

* This total represents the area sown, but details of each crop are conventional harvested areas of normal productiveness, the sum of which falls short of this total.

Among "other food grains and pulses" may be mentioned barley, 8,003,000 acres, of which 5,151,000 are in the United Provinces, 1,181,000 in the Punjab, and 1,119,000 in Bengal, and maize, 6,784,000 acres, of which 2,544,000 acres are in the United Provinces, 1,229,000 in the Punjab, and 1,815,000 in Bengal. Out of 520,000 acres under tea, 433,000 are in Eastern Bengal and Assam, and 54,000 in Bengal, while out of 954,000 acres under tobacco, 347,000 are in Eastern Bengal and Assam, 144,000 in Bengal, and 174,000 in Madras.

Particulars for 1908–9 regarding some of the more important staples of Indian agriculture are given below. The figures are derived from returns of crop forecasts, and they include Native States as well as British India.

Rice.

Nearly one-third of the cropped area in British India is under rice. The provinces for which statistics are given in the margin ordinarily include 78 per cent. of the Indian rice crop. The figures are in thousands (omitting 000). Other provinces, notably the United Provinces, the Central Provinces, and Bombay and Sind, produce a large quantity of rice. In 1908–9 there was a shortage of crops in Bengal (which produces about one-third of the total of Indian rice), due chiefly to damage by heavy summer-rains and insect pests, and to the subsequent early cessation of rain. Although Bengal is the principal producer of rice, Burma is the largest exporter. The foreign exports of rice, which are subject to an export duty of three annas per maund (about 6*s.* 10*d.* per ton), amounted in 1908–9 to 1,513,000 tons, valued at £10,592,000, or less than the average. About 75 per cent. of the total was shipped from Burma. The price of white rice in Burma, which has been steadily rising in recent years, fell considerably in 1908–9. The salient features of the Burma trade in 1908–9 were a strong internal demand, large shipments from Burma to India proper, and a considerable restriction of exports to foreign countries. The coastwise shipments of rice from Burma to India proper, where there was scarcity, amounted to the extremely high figure of 1,022,000 tons, most of it being sent to Bengal and Eastern Bengal and Assam.

| Province. | Area in Acres. | | | Yield in Tons of Cleaned Rice. | | |
|---|---|---|---|---|---|---|
| | Average of five years to 1906–7. | 1907–8. | 1908–9. | Average of five years to 1906–7. | 1907–8. | 1908–9. |
| Bengal - - | 24,543 | 24,452 | 22,454 | 10,976 | 7,016 | 8,244 |
| Eastern Bengal and Assam. | 16,294 | 15,758 | 15,323 | 6,366 | 6,312 | 6,085 |
| Madras - - | 7,238 | 7,215 | 7,104 | 2,583 | 2,475 | 2,274 |
| Burma - - | 6,780 | 7,252 | 7,546 | 2,980 | 3,157 | 3,342 |
| Total - - | 54,855 | 54,677 | 52,427 | 22,905 | 18,960 | 19,945 |

AGRICULTURAL PRODUCE.

Wheat.

Wheat occupies usually about 10 per cent. of the whole cultivated area. The bulk of it is sown in autumn and reaped in spring. The area under wheat has greatly expanded with the extension of irrigation. More than half of it is in the Punjab and the United Provinces, and the greater part in each of these provinces is irrigated. The marginal table shows the area and yield of wheat, the figures being in thousands (omitting 000). The year was unfavourable in most of the wheat-growing provinces, principally on account of insufficient rainfall. Damage was also caused by cold high winds, and by frost in some parts. Both area and yield were therefore below normal.

| Province. | Average of five years to 1906–7. | | 1907–8. | | 1908–9. | |
|---|---|---|---|---|---|---|
| | Area. | Yield. | Area. | Yield. | Area. | Yield. |
| | Acres. | Tons. | Acres. | Tons. | Acres. | Tons. |
| Punjab | 8,029 | 3,339 | 8,272 | 2,489 | 8,884 | 3,057 |
| United Provinces | 7,186 | 2,539 | 4,406 | 1,675 | 5,675 | 2,132 |
| Central Provinces and Berar. | 3,306 | 820 | 2,715 | 489 | 2,781 | 694 |
| Bombay and Sind | 2,385 | 570 | 2,125 | 450 | 2,133 | 488 |
| Central India | 1,933 | 488 | 1,676 | 269 | 2,025 | 393 |
| Bengal | 1,311 | 419 | 1,003 | 299 | 1,255 | 320 |
| North-West Frontier Province. | 974 | 283 | 978 | 213 | 1,020 | 213 |
| Hyderabad | 970 | 79 | 933 | 67 | 1,098 | 72 |
| Rajputana | 895 | 180 | 604 | 133 | 888 | 198 |
| Elsewhere | 183 | 49 | 94 | 20 | 77 | 14 |
| Total | 27,172 | 8,776 | 22,806 | 6,104 | 25,836 | 7,581 |

The exports of wheat and wheat-flour are subject to great fluctuations, as the marginal figures show. The export demand for wheat has led to an extension of cultivation. This is very beneficial to India, partly because the crop is a profitable one, and partly because in years of scarcity the rise in prices renders the grain available for home consumption. In a famine year, like 1900–1, the export falls to a trifling quantity. The quality of grain shipped has recently improved through a reduction in the proportion of dirt, seeds, &c. intermixed with the grain. The wheat exported in one financial year is drawn mainly from the crop of the previous year.

| | Wheat. | Flour. |
|---|---|---|
| | Tons. | Tons. |
| 1900–1 | 2,500 | 24,800 |
| 1–2 | 366,100 | 26,500 |
| 2–3 | 514,600 | 35,900 |
| 3–4 | 1,295,600 | 40,500 |
| 4–5 | 2,150,000 | 51,700 |
| 5–6 | 937,500 | 45,000 |
| 6–7 | 801,400 | 40,900 |
| 7–8 | 880,500 | 37,200 |
| 8–9 | 109,750 | 30,100 |

Tea.

The marginal table furnishes an estimate of the cultivation and the production of tea in India during the years 1906 to 1908; for Southern India and Travancore the figures are not reliable. Since 1885 the area under cultivation has increased by 93 per cent., and the production by 245 per cent. The production of green tea was 3,134,500 lbs. in 1908, as against 3,529,300 lbs. in 1907. During 1908 the tea gardens employed 509,500 persons permanently and 74,700 temporarily. The capital invested by joint stock companies in tea production is returned at £15,728,000, and, in addition, a large but unknown quantity of private capital is invested. The prices of most of the principal grades of tea showed a substantial decrease in 1908. Consignments of tea to London on optional bills of lading tend to be more and more replaced by direct shipments. A marked feature of the Indian tea trade in recent years has been the large increase in sales to Russia, which took, in 1908, 18 million lbs. direct, 3 million lbs. *viâ* the United Kingdom, and a large but unknown quantity *viâ* China. The direct exports of Indian tea by sea during the last three years are returned as shown in the margin.

| Province. | Area in thousands of Acres. | | | Production in thousands of Lbs. | | |
|---|---|---|---|---|---|---|
| | 1906. | 1907. | 1908. | 1906. | 1907. | 1908. |
| Eastern Bengal and Assam. | 423 | 428 | 433 | 207,071 | 214,259 | 211,547 |
| Bengal | 54 | 54 | 54 | 16,085 | 13,503 | 14,994 |
| Madras | 10 | 11 | 15 | 3,094 | 3,471 | 4,436 |
| United Provinces | 8 | 8 | 8 | 2,290 | 2,295 | 2,010 |
| Punjab | 9 | 9 | 9 | 1,238 | 1,238 | 1,438 |
| Travancore and Cochin. | 27 | 26 | 27 | 11,186 | 12,749 | 12,594 |
| Burma | 1 | 2 | 2 | 439 | 505 | 458 |
| Total | 532 | 538 | 548 | 241,403 | 248,020 | 247,477 |

| Countries. | 1906. | 1907. | 1908. |
|---|---|---|---|
| | Millions of Lbs. | Millions of Lbs. | Millions of Lbs. |
| To United Kingdom | 176·6 | 173·9 | 173·2 |
| „ Russia | 12·6 | 15·4 | 18·1 |
| „ Australia | 9·6 | 10·4 | 8·3 |
| „ Canada | 15·6 | 5·4 | 6·9 |
| „ Ceylon | 3·3 | 9·3 | 5·0 |
| „ China, Hong Kong | 1·6 | 1·0 | 1·0 |
| „ China, Treaty Ports | 3·2 | 6·6 | 5·8 |
| „ Germany | 1·2 | 0·9 | 1·3 |
| „ Persia | 0·7 | 1·8 | 0·9 |
| „ Turkey in Asia | 3·2 | 3·7 | 3·3 |
| „ United States | 2·2 | 2·2 | 2·1 |
| „ Other Countries by Sea | 4·0 | 2·8 | 3·6 |
| Total | 233·8 | 233·4 | 229·5 |

The growing appreciation of the superior richness and strength of Indian tea is shown by the increased imports into this country. In 1875 the United Kingdom drew 86 per cent. of its supplies from China, and 13 per cent. from India, while in 1909 only 5 per cent. came from China and 54 per cent. from India. If the quantities retained for home consumption be taken, the proportion of India in 1909 was over 56 per cent., and of China less than 3 per cent.

Sugar.

The area under sugar was reported to be 2,184,000 acres in 1908–9, and the yield was estimated at 1,841,800 cwt. Both area and yield were considerably smaller than

AGRICULTURAL PRODUCE.

in 1907–8 owing to the unfavourable season. Of the total area, 1,119,400 acres were in the United Provinces, where the acreage has considerably increased. Bengal contained 375,100 and the Punjab 365,600 acres. These figures, however, are not very reliable, as in many large sugar-growing areas no accurate records are available, and sugar cane is often grown in small and irregular clumps whose extent is not easily estimated. To the sugar-cane cultivated in British India must be added the extensive crops grown in Native States. In estimating the total output account must also be taken of the large production of palm sugar, chiefly in Bengal, Madras, and Burma. By no means all of the sugar produced is converted into "refined" sugar; for a considerable quantity both of cane in the raw state and of the unrefined sugar or *gur* is consumed as food. For this sugar high prices can be secured in spite of the increasing competition of cheap sugar imported from abroad. The imports of sugar, including confectionery and molasses, during recent years are given in the margin, the figures representing for the most part refined sugar. The imports from Austria-Hungary and Germany are of beet sugar, and those from Mauritius and Java, of cane sugar. The large increase in the imports from Java is remarkable. The countervailing duties imposed in 1899 and subsequent years have not been levied since 1903 on the produce of countries which adhered to the Brussels Sugar Convention and abolished sugar bounties.

| Countries. | 1906–7. | 1907–8. | 1908–9. |
|---|---|---|---|
| | Tons. | Tons. | Tons. |
| Java | 206,762 | 357,750 | 358,035 |
| Mauritius | 139,861 | 151,965 | 139,818 |
| Austria-Hungary | 80,859 | 34,759 | 93,904 |
| Germany | 100,070 | 3,943 | 2,990 |
| Other Countries | 27,650 | 10,571 | 9,165 |
| Total | 555,202 | 558,988 | 603,912 |

Cotton.

One of the most important crops for the grower, the Indian manufacturer, and the exporter, is cotton. The estimated area and yield of cotton in India are returned as shown in the margin for the last three years. The figures are in thousands (omitting 000). Although the area was nearly 9 per cent. less in 1908–9, the total estimated yield showed a considerable increase. Doubt, however, is thrown on the estimate of yield by comparing it with the total of the net exports and the Indian consumption of cotton, which for the three years given were 5,361,650 bales, 4,479,450 bales, and 4,290,000 bales respectively.

| Province. | 1906–7. | | 1907–8. | | 1908–9. | |
|---|---|---|---|---|---|---|
| | Area (Acres). | Yield in Bales (of 400 lbs. each). | Area (Acres). | Yield in Bales (of 400 lbs. each). | Area (Acres). | Yield in Bales (of 400 lbs. each). |
| Madras | 1,703 | 157 | 1,855 | 198 | 1,607 | 165 |
| Bombay, with Native States, Sind, and Baroda. | 7,633 | 1,917 | 7,360 | 1,174 | 6,269 | 1,354 |
| United Provinces | 1,489 | 639 | 1,461 | 268 | 1,363 | 419 |
| Punjab and North-West Frontier Province. | 1,474 | 370 | 1,523 | 366 | 1,616 | 336 |
| Central Provinces and Berar | 4,678 | 881 | 4,432 | 595 | 4,175 | 768 |
| Hyderabad | 3,480 | 449 | 3,100 | 293 | 2,902 | 295 |
| Burma | 187 | 36 | 195 | 29 | 193 | 31 |
| Central India | 1,136 | 221 | 993 | 55 | 957 | 144 |
| Rajputana | 428 | 176 | 438 | 91 | 407 | 86 |
| Bengal | 75 | 16 | 70 | 14 | 67 | 14 |
| Eastern Bengal and Assam | 76 | 17 | 79 | 24 | 80 | 19 |
| Mysore | 89 | 10 | 84 | 6 | 63 | 3 |
| Ajmere-Merwara | 40 | 19 | 40 | 9 | 40 | 9 |
| Total | 22,488 | 4,908 | 21,630 | 3 122 | 19,739 | 3,643 |

The exports of raw cotton from India in recent years have been as shown in the margin. The exports of 1908–9 were mainly furnished from the crop of 1907–8, when the season was very unfavourable. Prices were considerably lower than in the preceding year. The bulk of Indian cotton is exported to Japan and Western Europe. Very little goes to England, as Lancashire requires a finer class of cotton than India can as yet readily supply.

| | Cwts. | | £ |
|---|---|---|---|
| 1906–7 | 7,400,800 | valued at | 14,652,300 |
| 1907–8 | 8,562,000 | „ | 17,135,000 |
| 1908–9 | 6,798,400 | „ | 13,179,000 |

Jute.

India has a virtual monopoly of the production of jute, which is chiefly grown in Northern and Central Bengal and the eastern districts of Eastern Bengal. There was a decline in the cultivated area in 1909, as the season was very unfavourable and the price of jute had fallen. The estimated acreage and outturn in the Bengal provinces in recent years are as shown in the margin. These figures do not include statistics for Nepal, Madras, and Upper India, the outturn of which was reported to be 88,800 bales.

| Year. | Acreage. | Outturn in Bales (of 400 lbs. each). |
|---|---|---|
| 1907 | 3,942,200 | 9,736,200 |
| 1908 | 2,856,700 | 6,310,800 |
| 1909 | 2,732,700 | 7,206,600 |

The years 1907–8 and 1908–9 were less prosperous than 1906–7, which was one of extraordinary activity and unprecedented profits. For the three years ended 1905–6, the average prices per bale at

Calcutta were Rs. 31.12.0, Rs. 36.8.5, and Rs. 44.11.7 per bale respectively. In 1906 the price rose to Rs. 60.4.4, but fell in 1907–8 to Rs. 44.12.0, and in 1908–9 to Rs. 38.12.0. AGRICULTURAL PRODUCE.

The total Indian consumption of raw jute in 1908–9 was estimated at 14¾ million cwts. The exports were very large, being 26 per cent. greater in quantity than in 1907–8, though prices were lower. In addition there was a large export of jute manufactures, as the marginal table shows (figures in thousands omitting 000). Of the raw jute exports in 1908–9, over 37 per cent. went to the United Kingdom, nearly 21 per cent. to Germany, 19 per cent. to the United States, and 10 per cent. to France. The fluctuations in exports of raw jute are more noteworthy than those in exports of jute manufactures.

| Year. | Raw Jute. | | Jute Manufactures. | Total Exports. Value. |
|---|---|---|---|---|
| | Quantity. | Value. | Value. | |
| | Cwts. | £ | £ | £ |
| 1906–7 | 15,970 | 17,892 | 10,477 | 28,369 |
| 1907–8 | 14,192 | 11,982 | 12,198 | 24,180 |
| 1908–9 | 17,880 | 13,223 | 10,491 | 23,714 |

The area under, and the yield of, the main oil-seed crops for all India are given approximately in the margin. The figures are in thousands (omitting 000). Oil seeds.

The rape and mustard-seed crop is grown chiefly in the United Provinces, the Punjab, Eastern Bengal and Assam, and Bengal; linseed in the United Provinces, the Central Provinces, Bengal, and Hyderabad; sesamum (til or jinjili) in the United Provinces, the Central Provinces, Bombay, Madras, and Hyderabad; while the groundnut area lies chiefly in Madras, Bombay, and Burma. The general seasonal conditions were on the whole favourable, except in Bengal.

| Seed. | Average of five years to 1906–7. | | 1907–8. | | 1908–9. | |
|---|---|---|---|---|---|---|
| | Area. | Yield. | Area. | Yield. | Area. | Yield. |
| | Acres. | Tons. | Acres. | Tons. | Acres. | Tons. |
| Rape and mustard | 6,069 | 1,019 | 5,200 | 688 | 6,025 | 988 |
| Sesamum - - | 4,954 | *335 | 4,917 | *286 | 5,097 | *475 |
| Linseed - - | 3,766 | 436 | 2,099 | 164 | 2,912 | 239 |
| Groundnut - - | 507 | *159 | 869 | 353 | 989 | 442 |

* Incomplete figure.

Exports of seeds have been as shown in the margin for the last three years (in 000 cwts.). The value exported in 1907–8, £11,210,000, was a record. The poor export returns of 1908–9, valued at £7,785,000, were the result of the bad crop of 1907–8. The principal markets for Indian oil seeds are France, Germany, the United Kingdom, Belgium, Italy, and Austria-Hungary. In linseed India suffers from the competition of Argentina and Russia. The trade in Indian cotton seed, which has now attained large dimensions, is of comparatively recent growth.

| Seed. | 1906–7. | 1907–8. | 1908–9. |
|---|---|---|---|
| | Cwts. | Cwts. | Cwts. |
| Linseed - | 4,379 | 6,198 | 3,210 |
| Rape - - | 3,729 | 5,343 | 2,766 |
| Cotton - | 4,388 | 4,250 | 3,683 |
| Sesamum - | 2,741 | 1,553 | 1,657 |
| Groundnuts | 1,725 | 1,524 | 1,782 |
| Castor - | 1,505 | 1,994 | 1,650 |
| Poppy - | 803 | 1,257 | 790 |
| Other sorts - | 466 | 1,066 | 705 |
| Total - | 19,736 | 23,185 | 16,243 |

## Co-operative Credit Societies.

CO-OPERATIVE CREDIT SOCIETIES.

*(For further details see Statistical Abstract for British India, Table* 117.)

The latest reports on societies formed under the Co-operative Credit Societies Act of 1904 refer to the year 1908–9. These societies have been started by Government as an experiment, in order that the poorer classes, and more particularly the cultivators, may be enabled to borrow money at reasonable rates, and may at the same time learn self-help and self-dependence. The registrars are Government officials, and Government aid is given in various ways, but aid is also enlisted from educated non-official gentlemen with local influence.

The societies are divided into central, rural, and urban societies. A Central Society, or "Co-operative Union," is an institution the members of which are representatives of a number of small affiliated societies standing to it in the same relation as individual members stand to their village society. A Co-operative Union is empowered to raise loans or accept deposits, as may be advisable in the interest of the affiliated societies, the profits being credited to a reserve fund upon which each society has a claim in the case of bad debts caused not by mismanagement but by misfortune or calamity. A union of this kind may be in a position to deal with capitalists or with joint stock banks, and to raise money on more favourable terms than is possible for the smaller societies. There are three Central Societies in the United Provinces (all of them district banks), three in Madras, two in Bengal, one in the Punjab, one in Burma and four in the Central Provinces and Berar, all with limited liability, besides one in the last province with unlimited liability. No fewer than eight of these were formed in 1908–9. District Banks, which are of the nature of joint stock lending societies, exist as a regular part of the system in the United

CO-OPERATIVE CREDIT SOCIETIES.

Provinces only, where they number 16, and are classed as urban societies. Of these three deal with their own shareholders and with independent societies, while 13 deal with affiliated societies. Of the other societies, a large majority are rural, but the urban societies have the larger average membership. Not quite all the societies are engaged in the business of co-operative credit. Some are societies of clerks, while others are formed among weavers and other artisans. The general rule of rural credit societies is to work with unlimited liability and without share capital; the majority of urban societies, on the other hand, have limited liability. The Indian Act does not permit rural societies to pay dividends. The principle of unlimited liability, when it is understood, has no terror for the ryot; he has been long accustomed to it in his family relationships, while the principle of limited liability is relatively unfamiliar. But the former system must naturally be accompanied by the power to exclude all in whom the majority have no confidence. Except in the Central Provinces, where all loans have been issued for productive purposes, loans are granted without restriction on their employment. In Bengal, Madras, and Eastern Bengal and Assam a considerable part of the loans are for repayment of old debts bearing exorbitant rates of interest, but an increasing number are for productive purposes, such as cultivation and purchase of cattle.

There is a considerable variety in the rates of interest charged in different provinces, but the rates are in nearly all cases considerably lower than those charged by local moneylenders (as the marginal table shows). Too much reliance must not be placed on the figures given, but they will serve for the purpose of a rough comparison. The rates attributed to village moneylenders are those charged on agricultural loans to ordinary cultivators; in individual cases very much higher rates are charged. In many cases the moneylenders have not unnaturally disliked the movement. In some cases they have given active help. A system by which the moneylender dealt with village societies instead of with individuals might ultimately prove much to his advantage. At present the societies derive their resources from members' deposits, Government loans, loans from other co-operative societies, and loans from non-members.

| Province. | Village Moneylenders. | Co-operative Credit Societies. | |
|---|---|---|---|
| | Rates per Cent. per Annum charged. | Rate per Cent. charged on Loans to Members. | Average Rate per Cent. paid on Members' Deposits. |
| Madras | 9 to 18<br>9 on large loans. | 6¼ to 12½ | 5 to 7½ |
| Bombay | 15 to 55 | 9⅜ | 6¼ |
| Central Provinces and Berar. | 18 to 25 | 9⅜ to 12 | 7 |
| Bengal | 12 to 75 | 15⅝ to 18¾ | 8 to 10 |
| Eastern Bengal and Assam. | 24 to 75 | 9 to 18¾ | 6¼ |
| Punjab | 18 to 24 | 9 to 12½ | 5 |
| United Provinces: Oudh and Meerut. | 12 to 18 | 12½ | 6¼ |
| United Provinces: other Divisions. | 37½ | | |
| Burma | 36 to 60 | 15 | 9 |

The table in the margin shows the main statistics of the societies for the year to 30th June 1909 and for the preceding year. It will be seen that membership and capital both largely increased. The great advance which has been made becomes evident when it is remembered that in March 1905 there were altogether only 35 rural and 6 urban societies. The movement has almost everywhere passed out of the experimental stage; a large number of the societies are firmly established on a self-supporting basis, and they are winning more and more the appreciation and confidence of the people. Loans are well and punctually repaid. It is noteworthy that in spite of the large increase in working capital the amount lent by the State is but little larger than in the previous year. Except in Ajmer progress in 1908–9 was satisfactory in all provinces.

| No. of Societies. | June 1908. | June 1909. |
|---|---|---|
| Central | 7 | 15 |
| Urban | 149 | 227 |
| Rural | 1,201 | 1,766 |
| | 1,357 | 2,008 |
| No. of Members | 149,160 | 184,889 |
| *Capital.* | £ | £ |
| Loans from private persons | 82,900 | 166,254 |
| " " other societies | 38,984 | 106,441 |
| Share capital | 62,395 | 98,484 |
| Deposits by members | 61,302 | 107,868 |
| Loans from Government | 43,454 | 45,743 |
| Reserve | 5,237 | 12,885 |
| Total | 294,272 | 537,675 |
| *Expenditure.* | £ | £ |
| Loans repaid to private persons | 26,798 | 94,022 |
| Loans issued to members | 246,201 | 399,995 |
| Purchase of raw material and stores | 26,044 | 44,959 |
| Profits | 12,061 | 21,751 |
| Total | 311,104 | 560,727 |

In Bengal the movement is essentially a rural one, and much success has been achieved with small and humble societies of the Raiffeisen type. Many new rural Raiffeisen Societies have been formed, and the policy is to group these societies with the object of gradually combining them into unions on a joint stock basis. In 1908–9 the chief work was the successful establishment of two Central Banking Unions, embracing 45 societies.

Co-operative Credit Societies.

Development in Bengal has been largely due to the aid of honorary organisers, there being no district banks to encourage the growth of societies. Evidence of popular interest is rather lacking. In Eastern Bengal and Assam progress was steady, and the number of societies rose from 135 to 231, of which 88 per cent. were rural. A promising feature was an increase in the loans granted by urban to rural societies. Officials of all grades are taking interest in co-operation. In the United Provinces there was a great increase in working capital, the chief need of the movement, and less than 5 per cent. was provided by Government. Joint stock banks lent money more readily and in larger amounts to societies. Small urban societies for the industrial and professional classes rapidly increased. Loan societies alone showed a decline. The number of independent rural societies nearly doubled, and the policy has been deliberately adopted of restricting their membership and area of operations. With the extension of the share system the number of Raiffeisen societies continue to decrease. Small compact societies are found to give the best results. The richer classes have changed their attitude and appear less apathetic towards co-operation. In the Punjab the movement is mainly confined to eight districts. The societies, though working well on the whole, still need careful supervision and frequent inspection. During the year 88 new societies were formed, half of them by the aid of funds supplied by the new Jullundur Bank. Two more district banks were established. Unions are being started on the Bengal model. In the Central Provinces the formation of new societies was not very actively encouraged because the Central Banks wanted time to secure their own position before expanding their operations, and societies have only been established where they could be financed as part of a real live scheme. Twenty new societies, however, were registered, including a Central Bank and an urban society. The existence of a Central Bank is necessary to ensure the growth of successful village societies. In Burma expansion was remarkable, the number of societies increasing from 80 to 174. The average membership, however, was smaller. Only seven Schultze societies now survive, and many of the Raiffeisen societies are likely to be converted into Luzzatti societies. Two co-operative unions were started. An important advance was made by an arrangement that the Bank of Rangoon should finance the movement with two lakhs of rupees as a beginning. Private capital has been freely invested by natives, and the movement is now independent of Government financial aid. Great interest is shown by the public, and there is no lack of funds. The chief difficulty is organisation. In Madras the volume of transactions and deposits largely increased. The Madras Central Bank prospered and a district branch (a central society) was successfully established at Salem. Some of the older societies have been voluntarily converted from a limited to an unlimited liability basis. In Bombay the banks are steadily progressing, and last year the total membership increased by 34 per cent. A scheme, undertaken by leading local capitalists, for starting a Bombay Central Bank was matured.

In most provinces the question of financing the societies is in the way of being solved, but the best methods of providing audit, inspection, and control are not yet settled, though experience points to the organisation of societies into local unions as the best solution. Experience has also shown, among other things, the necessity for great care in selecting members; the need of obtaining sufficient capital to supply the wants of members; the necessity of considering current local rates of interest in fixing the rates at which members should borrow from the society; the need of closer supervision of small societies and improved methods of financing them; and the need of amending the Act in several respects.

The Fourth Annual Conference of Registrars of Co-operative Credit Societies, held in November 1909, discussed a great variety of subjects, the most important being a proposal to amend the Co-operative Credit Societies Act. Provincial conferences were also held in some of the provinces.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

# CHAPTER VII.

## FORESTS.

FORESTS.

*(For further details see Statistical Abstract of British India, Tables 59, 60, and 125.)*

General. Systematic conservancy of the Indian forests is based on the Forest Act of 1878, which gave the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. Special forest laws have also been enacted for each province, and a staff of trained forest officers has been organised. Forest administration is based upon the principle that State forests should be administered for the public benefit; they are worked, therefore, with a view to combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and as retainers of moisture in the soil. The forests are classified as "reserved," "protected," or "unclassed." In the reserved areas the control of the Forest Department is more complete than in the protected or unclassed forests. In the latter, the area of which cannot be precisely stated, are included large tracts of uncultivated land, especially in Burma, much of which will probably become agricultural land. Among the most important measures of conservancy are the prevention, so far as possible, of the fires which are liable to devastate the forests, the plantation and reproduction of timber and firewood, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At present the reserved (including leased) forests cover an area of about 94,000 square miles; and there is scope for further reservation in Madras and Burma. Outside the reserves there are about 146,000 square miles of State forests, including 9,000 square miles of protected forests. Some part of this area will eventually be brought within the "reserve" area, and all of it is, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests dealt with in this chapter are, almost exclusively, State forests. The limited areas of private forest, except where they have been leased to the Government, are being gradually exhausted; and few private communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use without charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. The gross revenue derived from forests in 1908–9 was £1,700,900, including £466,400 and £1,133,600 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £994,200, leaving a net revenue of £706,700. Some of the Native States, such as Kashmir, Mysore, Travancore and Baroda, have also organised a systematic forest administration, from which they derive a considerable revenue. The following paragraphs treat of forest administration in each province.

Bengal. At the end of 1908–9 the areas of reserved and protected forests were respectively 4,240 and 3,380 square miles, representing over 6 per cent. of the area of the province. Steps are to be taken for the more effective management of protected forests, which in many places, owing to excessive grazing and demands for forest produce, are tending to disappear. Working plans have been provided for 5,712 square miles. With regard to fire protection, the year was very favourable. Attempts were made to exclude fire from 1,888 square miles, and only 16,066 acres were burnt. The rubber (*ficus elastica*) plantation in the Tista division has so far been very successful. The yield of timber was nearly 5½ million cubic feet, an increase on that of 1907–8, and the out-turn of fuel, 31¾ million cubic feet, was also larger. The number of bamboos taken from the forests was over eleven millions. Owing to the increased expense of planting, closer

attention has been paid in recent years to natural regeneration. Practically the whole of the protected forests are open to grazing. The most difficult question at present is the supply of adequate facilities for grazing and for gathering fodder. From a commercial standpoint the year's working was very satisfactory, the surplus revenue being £41,363. The number of recorded offences against the Forest Laws was much below the average. There was a decline in the number of workmen killed by tigers in the Sunderbans and Singhbhum forests from 151 to 116. FORESTS.

The areas of reserved and protected forests at the end of 1907–8 were 3,935 and 9,099 square miles respectively, in addition to 157 square miles of leased forests and 55 square miles of unclassed forests. The damage resulting from the severe drought of 1907–8 was not so great as was at first feared, and was mainly confined to forests in the plains. The year was more prosperous than the preceding one, although depression at the time of the auction sales, consequent on the recent famine, caused a decreased output of timber. Fire protection was much more successful than in the previous year. The yield of the forests was $5\frac{7}{8}$ million cubic feet of timber, $11\frac{1}{2}$ million cubic feet of fuel, and $15\frac{1}{2}$ million bamboos, besides minor produce. The removal of forest produce is almost entirely carried on by outside agency. The resin and turpentine industry in the Naini Tal and Jaunsar divisions continued to give good results. The surplus revenue for the year was £78,000. Breaches of the forest rules, which were more numerous than usual, consisted mostly of illicit grazing and unauthorised fellings. The year was a good one for natural reproduction. United Provinces.

The reserved forest area at the end of 1908–9 comprised 1,953 square miles, including 110 square miles under military or other control. The protected forests aggregated 5,223 square miles, while there are 1,580 square miles of unclassed forest and 369 square miles of leased forests. The area was reduced during the year, mainly by the transfer of 101 square miles of unclassed forests to the Civil Department. For various reasons little progress was made with working plans, which are still required for 4,640 square miles. The season, being wet, was very favourable as regards forest fires, a marked decrease occurring in the number of fires and the area burned. The policy of exploiting the forests through non-departmental agency has been still further extended, as its expediency is undoubted. The out-turn of timber was about $2\frac{1}{2}$ million cubic feet, a heavy decline from 1907–8, while the fuel out-turn was nearly 23 million cubic feet. The surplus of the year, £23,900, was considerably below the average of the preceding quinquennium. About 82 per cent. of the forest area was open to cattle for grazing. The difficulty of protecting forests from damage by excessive grazing has become greater as cattle and pastoral animals have largely increased, and it is not easy to strike a fair balance between the immediate interests of the people on the one hand and those of forest conservancy on the other. Experiments were made with the cultivation of several species of eucalyptus. The number of forest offences, chiefly under the heads of illicit felling and grazing, was larger than in 1907–8. Punjab.

At the end of 1908–9 the area of the reserves under the direct control of the Department was 250 square miles, besides 121 square miles of civil protected forests. Working plans have now been framed for all forests. There was a decrease in the out-turn of produce, the quantities being 415,000 cubic feet of timber and 395,000 cubic feet of fuel. The net revenue was £6,238, or considerably more than in any year except 1907–8. There was an increase in the number of forest offences. The protection from fire was much better than in 1907–8. North-West Frontier Province.

The reserved forest area in Burma was increased during 1908–9 by 723 square miles to 23,581 square miles; the unclassed forests, much of which will ultimately be brought under cultivation, covered 110,868 square miles, an increase of 3,270 square miles. Satisfactory progress was made in the settlement of tracts to be maintained as reserves. Proposals were prepared for the reservation of areas in the Magwe Division in order to prevent the destruction of forests at the head-waters of streams. Working plans for 1,344 square miles were sanctioned. The area of reserved forests not under working plans at the end of the year was 14,760 square miles. The majority of the teak-bearing forests are now being managed under working-plans or girdling schemes. The area in which fire protection was attempted covered 7,457 square miles, and the results were very successful. Only 758 square miles of reserved forests were open to animals for grazing. Rubber, teak, and other plantations were maintained, and experiments were made with the cultivation of camphor. No satisfactory offer having been received for the lease of the rubber plantation at Mergui, its management by the Forest Department was continued. There was a large increase in the number of trees girdled and in the quantity of Burma.

FORESTS.

timber extracted. The number of teak trees girdled was 122,600 and the quantity of teak extracted was 270,140 cubic tons, including 219,000 by purchase contractors, an increase of 55,600 cubic tons, due to a favourable floating season. Of other timbers, 317,400 cubic tons were extracted, besides 276,600 cubic tons of fuel. The area under teak worked by the Department is being strictly curtailed in favour of the system of extraction by firms under purchase contracts, which is expected to yield more satisfactory financial results. The surplus revenue amounted to £360,000. There was an increase in the number of forest offences, which are mostly petty cases of illicit felling.

Central Provinces and Berar.

The total area of forests at the end of 1908–9 was 21,921 square miles, including permanent reserves of 20,248 square miles. The forest area shows a decrease of 81 square miles, due chiefly to disforestment for the extension of agriculture. The total length of forest boundaries is nearly 37,000 miles, of which 92 per cent. has been artificially marked. Special attention has been given to the making of roads which will facilitate the utilisation of forest resources. Further working plans were sanctioned or in progress; new plans are still required for 4,664 square miles, or 27 per cent. of the whole area. In future a revenue officer is to be deputed to consult with the working-plans officer with the view of securing due attention to agricultural interests. Owing to well distributed rainfall and more systematic protection fire-conservancy measures were very successful. The area under fire protection is now 66 per cent. of the area of permanent reserves. The number of forest offences increased by 20 per cent., chiefly under the heads, theft of wood and cattle-trespass, which form the great majority of offences. There was a large decline in the out-turn of forest produce. The amount of timber removed from the forests during the year, chiefly by private persons, was about 4½ million cubic feet, that of fuel nearly 17 million cubic feet. The lac industry proved disappointing. The surplus revenue was only £29,000, a decrease of £5,000 on 1907–8, mainly due to smaller sales of produce, consequent on the recent scarcity and the poor demand during a *singhast* year. As usual, a large part (50 per cent.) of the revenue was yielded by grazing and fodder-grass, while 23 per cent. was derived from timber and fuel, and 27 per cent. from minor produce. Proposals for extending the Indian Forest Act to Berar were submitted during the year.

Eastern Bengal and Assam.

The forest area at the end of 1908–9 included 6,321 square miles of reserved or protected forests, or about 6½ per cent. of the total area of the province, and 22,703 square miles of unclassed forests. The unclassed forests consist largely of grass or treeless waste in Assam; they are all open to grazing, and part of their area is more or less regularly under cultivation. Working plans are still required for 4,650 square miles of reserved forests. Special fire protective measures extended over 1,518 square miles, but on account of the unusual dryness of the year there were numerous fires and 354 square miles were burnt. There was a decrease in the number of forest offences, which consist chiefly of unauthorised fellings. The Chardúar and Kulsi plantations of rubber (*ficus elastica*) produced only moderately satisfactory results. Successful efforts have been made to introduce rubber cultivation in the Lushai Hills and elsewhere. Experiments in the propagation of lac have not met with success. The gross yield of the forests is given as 6½ million cubic feet of timber and 11¾ million cubic feet of fuel. The surplus revenue amounted to £38,644. It is found more profitable to sell standing timber to contractors than to exploit it by Government agency. A partial re-organisation of the forest staff was effected.

Madras.

The total area of forests on 30th June 1909 was 19,570 square miles, of which 18,694 square miles were classed as reserved forests. The settled and systematically protected forests cover nearly one-seventh of the area of the Presidency. Detailed working plans were sanctioned or in preparation for 979 square miles. Protection from fire was satisfactorily undertaken over 7,240 square miles. There were 25,470 forest offences, but 18,054 were compounded. Natural reproduction was generally good. The regular plantations consist chiefly of teak in Malabar, and of casuarina in many districts. The plantation of rubber, mahogany, camphor, and other valuable trees is being extended. The area of reserves open to cattle for grazing was about 88 per cent. of the total. The yield of the forests was about 3⅓ million cubic feet of timber and 21 million cubic feet of fuel, besides 32 millions of bamboos, and minor produce. The out-turn was smaller than in 1907–8, and the surplus revenue amounted to about £60,000. Departmental depôts for supplying the people with fuel and bamboos worked satisfactorily.

Bombay.

The area of the reserved forests was 13,063 square miles at the end of 1908–9, while that of the protected forests was 1,037 square miles. The area for which

working plans have been sanctioned is 6,018 square miles, or about 45 per cent. of the total area. Special works for the reproduction of rubber were undertaken in the three Thana Divisions. Forest offences were less numerous. The year was very unfavourable to fire protection, owing to drought, and the area damaged by fire increased by 10 per cent. The yield of timber was $5\frac{1}{4}$ million cubic feet, of fuel $30\frac{1}{2}$ million cubic feet, and of bamboos, 7 million cubic feet. The surplus revenue amounted to £99,656. FORESTS.

The area of reserved and protected forests at the end of 1908–9, was 520 square miles. Measures were taken for the artificial reproduction of sandal and teak. Sandal trees affected with "spike" disease were uprooted. Protection against fire was less successful, largely owing to incendiarism. The out-turn of the forests was 301,630 cubic feet of timber and fuel. The surplus revenue was £8,000. Coorg.

# CHAPTER VIII.

MINERAL PRODUCTION.

## MINERAL PRODUCTION AND MINING.

*(For further details see Statistical Abstract for British India, Table 216.)*

### MINERAL PRODUCTION.

General. During recent years much has been done to develop the mineral resources of India. The minerals that have been chiefly worked are those which can be consumed by direct process on the spot, or which, owing to their abundance and cheapness, are suitable for export in the raw state.

The output of minerals in India (including Native States) has shown a marked increase in the last six years, the estimated value of that for 1908 being £7,824,000, as against £4,550,000 for 1902, an increase of 70 per cent. By far the most important minerals are coal and gold, the production of which in 1908 was valued at £3,356,000 and £2,178,000 respectively, followed by petroleum, £702,000, salt, £523,000, and manganese ore, £466,000. These estimates of values relate to all production for which returns are available, but as they are based in many cases on local consumption values, or on values at the sea-ports, they cannot serve for comparison with the production of other countries, but only for the comparison of one year with another in India itself.

Coal. Coal is the most valuable mineral product worked, and is by far the largest supporter of labour. The production has risen in 21 years from 1½ to 12¾ million tons. The increase of production in 1908 over 1907 was nearly 15 per cent., although cholera hindered operations for two months in Bengal. The marginal table shows the large increase in output since 1903, and also brings out the territorial distribution of the mines. The areas not enumerated include the Punjab, Baluchistan, and Bikanir, in which production has hitherto been fluctuating and not very progressive. The increased production in 1908 was mainly due to the Bengal fields. Bengal produced over 90 per cent. of the coal won in India in 1908, the Jherria coal-field (opened in 1893) providing 6,459,000 tons, more than half the total output, the Raniganj 4,222,000 tons, and the Giridh 783,000 tons. In the Central Provinces the output of the Pench Valley Collieries, opened in 1905, rose to 120,250 tons in 1908.

| Province or State. | Coal produced in | | |
|---|---|---|---|
| | 1903. | 1907. | 1908. |
| | 000 Tons. | 000 Tons. | 000 Tons. |
| Bengal | 6,361 | 9,993 | 11,560 |
| Hyderabad (Singareni) | 363 | 414 | 444 |
| Eastern Bengal and Assam | 239 | 296 | 275 |
| Central Provinces | 159 | 134 | 214 |
| Central India | 193 | 179 | 155 |
| Other provinces or states | 123 | 131 | 122 |
| Total | 7,438 | 11,147 | 12,770 |

The exports of Indian coal, 660,000 tons, were slightly larger than in 1907. Ceylon and the Straits Settlements are the two principal markets. About 94 per cent. of the Indian production was consumed at home, nearly 30 per cent. of the output (3,684,000 tons) being absorbed by the railways, whose coal consumption is now Indian to the extent of nearly 98 per cent. It is roughly estimated that 1,600,000 tons were used for bunker coal for ocean-going and inland steamers, and 2,000,000 tons for jute and cotton mills and iron and brass foundries.

Prices in 1908 were the highest so far recorded. The average estimated wholesale price of coal at the pit's mouth rose steadily from the abnormally low value of 3*s.* 4*d.* per ton in 1905 to 5*s.* 3*d.* in 1908. The coal now being worked is near the surface, and labour is cheap; as a consequence Indian coal has a lower value at the pit's mouth than that of any other country. The amount of capital invested in coal mines cannot be given, but most of the Bengal output comes from mines owned by joint-stock companies. The dividends declared by the chief companies show that the trade was exceedingly profitable during the year.

The average number of persons daily employed in coal mines during 1908 was nearly 129,200, two-thirds of whom were men. The number of employees has increased, and, as the result of improved mining methods, their output per head has grown from 89 tons in 1904 to 99 tons in 1908, but even this is a somewhat low degree of efficiency if tested by European standards. The labourers include chiefly landless day labourers, though some are agriculturists. In some old established centres a mining caste is being evolved, and allotments of land are made to miners.

MINERAL PRODUCTION AND MINING.

Gold.

The production of gold amounted to 567,780 ounces, valued at £2,177,847, in 1908, compared with 557,686 ounces, valued at £2,126,756, in 1907. By far the greatest part of the gold (535,653 ounces) came from the Mysore gold-fields. The Hutti mine in Hyderabad produced 16,437 ounces in 1908.

Petroleum.

Since the introduction of European drills into the Burma oil-fields the production of petroleum has rapidly risen. Increased activity in the Twingon Reserves of the Yenangyaung oil-field, where rich oil-sands were struck at greater depths, led to a marked rise in the output during 1908. The production of crude petroleum rose to the record figure of 177 million gallons, as compared with 152 million gallons in 1907. About 3¼ million gallons of oil were extracted in Eastern Bengal and Assam; and the rest of the product, excepting a trifling amount from the Punjab, came from Burma, the principal oil-fields being at Yenangyaung, the oldest field, in Magwe district, and at Singu, in Myingyan district. The former of these yielded 124 million gallons. Oil refineries have been erected and the various constituents of the crude oil are put on the market in the form of petrol, illuminating oil, lubricating oil, coke, and paraffin wax. A pipe-line for conveying crude petroleum from the oil-fields to Rangoon has been constructed. The production and export of paraffin wax have steadily and largely increased. There was an increase in the imports of kerosene into India, in spite of the larger home production of mineral oil.

Manganese.

The greater portion of the output of manganese ore is now obtained from an extensive series of deposits in the Central Provinces, Madras, and Mysore. Owing to over-production, slacker demand, and foreign competition, prices declined considerably in 1908, when the production was only 674,315 tons as against the record figure of 899,055 tons in 1907. In 1907 production had been stimulated by the high prices prevailing in the steel market. The ores worked are for the most part exceedingly rich, as the high cost of transport renders the working of the lower-grade ores unprofitable, and India now probably turns out a larger quantity of high-grade ore than any other country. There is at present no smelting plant in the chief producing centres, and the ore is shipped in bulk exactly as mined, to be smelted in the United Kingdom, Germany, or the United States. The exports in 1908 were 427,500 tons.

| | 1907. | 1908. |
|---|---|---|
| | Tons. | Tons. |
| Central Provinces | 565,017 | 431,055 |
| Madras - - | 159,219 | 118,089 |
| Mysore - - | 113,307 | 68,624 |
| Central India - | 35,743 | 13,315 |
| Bombay - - | 22,821 | 23,232 |
| Bengal - - | 2,933 | 20,000 |
| Total - - | 899,055 | 674,315 |

Salt.

The production of salt in India (excluding Aden) in 1908 was 1,279,937 tons. About 63 per cent. is evaporated from sea-water, chiefly in Bombay and Madras. About 28 per cent. is derived from sub-soil water and lakes, and only 9 per cent. is obtained by mining and quarrying. The production of rock-salt amounted to 114,000 tons, most of which came from the Punjab Salt Range.

Saltpetre.

The value of the saltpetre industry is gauged most uniformly by the figures for exports, which increased to 386,199 cwt. in 1908, valued at £292,758, a slight advance on 1907. The local importance of the saltpetre industry appears from the returns of labour, which show that about 50,000 workers are employed in Behar, whence most of the saltpetre is obtained.

Mica.

India has for many years been the leading producer of mica, turning out more than half the world's supply. The returns of the mica output, which are now in fair agreement with the more accurate figures obtainable for exports, show a further decline in 1908, the total being 27,572 cwt., valued at £139,500 as against 39,055 cwt. valued at £226,400, in 1907. Small mica, which formerly was thrown away, is now saved, the result being that a greater output is produced by a smaller number of workers. The mines are situated in Bengal, Madras, and Rajputana.

Rubies.

The ruby industry in Burma has been productive during recent years. Owing to the depression in the general gem market the value of rubies exported, including small quantities of sapphire and spinel, amounted to only £47,954 in 1908, compared with £98,258 in 1907. The output is mainly derived from the Mogok mines of the Burma Ruby Mines Company. Rubies are also obtained by native miners working under licence from the Company.

Other Minerals.

Of minerals not above referred to may be mentioned jadeite, which was produced to the value of £73,400. The output of iron ore was only 59,224 tons. But in 1907 the Tata Iron and Steel Company was formed with a large capital to exploit iron ore lands in Orissa and the Central Provinces, and large developments in the production of iron ore are anticipated. There is a small output of tin, graphite, and chromite.

MINERAL PRODUCTION AND MINING

## MINING CONCESSIONS.

Mining Concessions.

Since Rules were issued in 1899 to govern the grant of exploring and prospecting licences and of mining leases, the number of concessions in lands in which the mineral rights have been retained by Government (exclusive of Native States) has rapidly increased, mainly owing to the enhanced interest in manganese in Bombay and the Central Provinces. The concessions granted in Government lands amounted in 1899 to 60 only, but in 1908 the number had risen to 816, including 508 prospecting licences, 237 exploring licences, and 71 mining leases. In some areas, including nearly all the coal-bearing land in Bengal, mineral rights have been conceded permanently with the surface ownership.

By the Rules exploring licences can be obtained for one year, but they give no exclusive or preferential rights, and there is no prohibition against free exploration in unoccupied and unreserved land. Prospecting licences are granted over restricted areas for a period of one year, renewable with the consent of the Local Government for a second and third term. Such licences carry an indefeasible claim for a subsequent mining lease for any mineral other than precious stones over the same or a restricted area.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

## INSPECTION OF MINES.

Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India, and regulates all mineral workings which are either true mines worked underground, or open pits, quarries, or excavations more than 20 feet deep and any part of which extends beneath the superjacent ground.

The number of mines of all kinds coming under the Act in 1908 was 1,062, of which 510 were coal mines, including 458 in Bengal, 399 mica mines, including 290 in Bengal, and 72 manganese mines. They gave employment to an average daily number of 164,301 persons (an increase of 8 per cent. in the year), of whom 103,322 were men, 54,518 women, and 6,461 children under twelve years old; 102,451 persons worked underground. The labour material is very unformed, possesses little skill, and requires constant supervision.

There were 135 fatal accidents, causing 194 deaths, during the year 1908, an increase of 72 over the deaths in 1907. The increase is chiefly due to the expansion and activity of the coal industry and to the increasingly difficult and dangerous conditions of mining work. Of the fatal accidents, 165 occurred in coal mines. Accidents in coal mining would probably be more numerous than now (1·37 per 1,000 workers) but for the fact that the workings are generally free from gas, very shallow, and not elaborate. Dangers must increase as the works become deeper.

## MINING EDUCATION, &c.

Mining Education, &c.

The number of students taking the Mining Course at Sibpur College during the session 1908–9 was 18. The demand for passed students exceeds the supply. The new practical mining laboratory, designed specially with a view to coal mining, is now in working order. Lectures were delivered at four centres in the Bengal coalfields in 1908–9, and 417 students were registered. The only Mining Board at work under the Mines Act of 1901 during 1908 was that for Lower Bengal, which is by far the most important mining centre in India. The Mining and Geological Institute of India, which was inaugurated at the end of 1905, made good progress during the year.

# CHAPTER IX.

## MANUFACTURES.

INDUSTRIAL DEVELOPMENT.
LARGE INDUSTRIES.
FACTORY LEGISLATION.
FACTORY INSPECTION.
PATENTS AND DESIGNS.



*(For further details see Statistical Abstract for British India, Tables 212 to 215.)*

### INDUSTRIAL DEVELOPMENT.



In recent years there has been much discussion in India regarding the advantages of encouraging manufactures for the purpose of securing greater diversity of occupation in a country that so largely depends on agriculture. The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. There are standing orders that stores required by Government shall, as far as practicable, be purchased in India. In March 1909 it was ordered that purchasing officers shall in all cases give preference to articles manufactured in India from Indian materials (or from imported materials), provided that the quality is sufficiently good and the price not unfavourable. From time to time monographs are issued dealing with the position in each province of some leading industry. In some provinces the local governments have instituted special inquiries to ascertain the prevailing industrial conditions, with a view to promoting those industries that appear, when properly organised, to give promise of success. A "Review of the Industrial Position and Prospects in Bengal in 1908" has been prepared by Mr. J. G. Cuming, I.C.S., a "Survey of the Industries and Resources of Eastern Bengal and Assam" by Mr. G. N. Gupta, I.C.S., and "Notes on the Industries of the United Provinces" by Mr. A. C. Chatterjee, I.C.S. Industrial conferences and exhibitions have been held, and a knowledge of Indian manufactures has become more widely diffused. A Director of Industrial and Technical Inquiries has been appointed in Madras. In September 1908 an official Madras Industrial Conference was held at Ootacamund, and it was decided to open a special department under the Director of Industrial Inquiries for pioneering new industries and for organising and improving the hand-weaving and other existing industries. In December 1908 a successful Industrial and Agricultural Exhibition was held at Nagpur. In March 1909 an Industrial Conference, convened by the Local Government, was held at Dacca. The annual Indian Industrial Conference, held in connection with the National Congress, took place at Madras in December 1908. Endeavours are being made in all provinces to improve the important and widespread domestic cotton industry by introducing better types of hand-looms and superior methods, in order that their products may compete more successfully with goods manufactured by power looms in India or imported from abroad. In Bombay the Government instructed Mr. P. N. Mehta to undertake a survey of the hand-weaving industry. He pointed out the many defects in the present methods of manufacture, and the hopeless indebtedness of the weavers to the yarn merchants. In consequence of his report, co-operative societies are being organised to enable weavers to utilise their joint credit for the purchase of yarn and improved looms. In Bengal improved methods are taught at the Serampur Weaving School and at six outlying centres. In the United Provinces schools have been established at five weaving centres under Government auspices to popularise the use of improved looms and simple warping processes. In Madras progress has been made with experiments in the process of chrome-tanning, and the operations for the first time yielded a profit. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations.

### LARGE INDUSTRIES.



In this chapter attention must be mainly confined to the larger industries, concerning which alone statistical information is available. By far the most important of these are the cotton and jute manufacturing industries, which have made rapid progress in recent years, as the following figures show:—

LARGE INDUSTRIES.

| Year. | Cotton Mills. | | | | Jute Mills. | | | |
|---|---|---|---|---|---|---|---|---|
| | No. | Capital. | Looms. | Spindles. | No. | Capital. | Looms. | Spindles. |
| | | £ | | | | £ | | |
| 1883-4 - | 74 | 5,525,000 | 16,251 | 1,895,284 | 23 | 2,124,000 | 6,139 | 112,650 |
| 1888-9 - | 109 | 6,747,000 | 22,156 | 2,670,022 | 25 | 2,599,000 | 7,419 | 151,207 |
| 1893-4 - | 138 | 8,121,000 | 29,392 | 3,539,681 | 27 | 2,701,000 | 9,180 | 191,228 |
| 1898-9 - | 174 | 10,182,000 | 37,288 | 4,463,342 | 33 | 3,821,000 | 13,421 | 279,482 |
| 1903-4 - | 206 | 11,392,000 | 45,281 | 5,167,608 | 38 | 4,954,000 | 18,400 | 376,718 |
| 1906-7 - | 217 | 12,601,000 | 59,599 | 5,546,288 | 44 | 6,330,000 | 25,284 | 520,504 |
| 1907-8 - | 227 | 13,160,000 | 66,718 | 5,763,710 | 50 | 7,019,000 | 27,244 | 562,274 |
| 1908-9 - | 232 | 13,682,000 | 74,084 | 5,945,122 | 52 | 7,393,000 | 29,483 | 607,189 |

Cotton mills.

The 232 cotton mills at work in India (including Native States and Pondicherry) in 1908-9 included 97 exclusively spinning, 14 exclusively weaving, and 121 both spinning and weaving mills. The majority of the mills, viz., 166, are in Bombay Presidency, and they contain 71 per cent. of the spindles and 80 per cent. of the looms. Bombay City contains 83 mills and Ahmedabad 52. The industry is to a large extent in the hands of Indians. In spite of some unfavourable years, the industry, as the above table shows, has continued steadily to develop.

The outturn of yarn in recent years in British India only is shown in the margin. The mills of the Bombay Presidency produced nearly 74 per cent. of the total, Bengal 6 per cent., Madras 6 per cent., the United Provinces 6 per cent., and the Central Provinces and Berar 5 per cent. It will be observed that yarns of counts above No. 25, constitute over 9 per cent. of the total production. They are chiefly spun in the Bombay mills. Imports of yarn amount to only about 6 per cent. of the Indian production, but a very small proportion is of counts under 25. The phenomenal activity of the cotton industry in 1905-6 was followed by a decline in prosperity during 1906-7, which became accentuated in 1907-8. In 1908-9 the Indian market was depressed owing to shortage of crops, high prices of food, and the fewness of marriages, but the situation was relieved by a timely demand from China, which is the principal market for Indian yarn. In China stocks were at a low ebb, while crop prospects were good, and exchange on the whole was favourable. Shipments to European markets declined. There was a good demand for yarn for weaving in Indian mills.

| Year. | Counts Nos. 1 to 25. | Above No. 25. | Total. |
|---|---|---|---|
| | Million Lbs. | Million Lbs. | Million Lbs. |
| Average : 1896-7 to 1900-1 - | 423·9 | 20·1 | 444·0 |
| 1901-2 to 1905-6 - | 537·4 | 39·9 | 577·3 |
| Year 1906-7 - | 581·4 | 49·2 | 630·6 |
| „ 1907-8 - | 556·6 | 57·2 | 613·8 |
| „ 1908-9 - | 572·0 | 57·9 | 629·9 |

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, which has greatly extended. This movement has been favoured by a strong internal demand for indigenous manufactures. Looms are increasing at a more rapid rate than spindles, and goods of finer quality are being produced. The production of woven goods in recent years in British India only is given in the margin. Weaving is concentrated to an even greater degree than spinning in the Bombay mills, which in 1908-9 produced about 84 per cent. of the total output of cloth; the United Provinces and Madras each contributed about 5 per cent.; and Madras about 4 per cent. These fabrics are mainly grey and bleached piece-goods. As the marginal table shows, however, there is a decided tendency to increase the output of other and finer fabrics, this tendency being specially marked in Madras.

| Year. | Grey and Bleached. | Other kinds. | Total. |
|---|---|---|---|
| | Million Lbs. | Million Lbs. | Million Lbs. |
| Average : 1896-7 to 1900-1 - | 80·6 | 11·3 | 91·9 |
| 1901-2 to 1905-6 - | 109·9 | 25·0 | 134·9 |
| Year 1906-7 - | 129·6 | 29·4 | 159·0 |
| „ 1907-8 - | 147·6 | 33·7 | 181·3 |
| „ 1908-9 - | 147·2 | 37·0 | 184·2 |

Jute mills.

While the cotton mills are largely owned by Indians and are mainly situated in Western India, jute mills are nearly all concentrated in Bengal in the vicinity of Calcutta, and are mostly in the hands of Englishmen. As will be seen from the statistical table above, the jute industry is of smaller dimensions than the cotton industry, but it has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having doubled in the last decade. The

number of jute mills in 1908–9 was 52, containing 29,483 looms and 607,189 spindles, and employing a daily average of 191,796 persons. The paid-up capital employed by 49 of these mills was £9,700,000, including debentures; of this total about £3,260,000 was sterling capital. In 1908–9 the number of spindles increased by 8 per cent., and the number of looms by 8 per cent. In 1908–9 there was a heavy fall in the prices of jute goods, owing to the slackness of the home demand resulting from bad harvests, and to widespread depression in trade abroad. LARGE INDUSTRIES.

There were six woollen mills at work at the end of 1908, containing 786 looms and 29,221 spindles, and producing goods valued at about £293,000 for the year. The industry shows little sign of expansion. The fabrics consist chiefly of cloth for the army and the police. The produce of Indian mills represents only a small share of the total trade in woollen goods, for, although the demand for woollen goods in India is not very large, certain varieties can be produced much more easily and cheaply by European mills. There are many small hand-loom factories for weaving carpets and rugs, whose production is in the aggregate extensive. Woollen mills.

There were nine paper mills at work at the end of 1908, producing during the year about 57 million lbs. of paper, valued at £506,000, the largest production yet recorded. Most of the official foolscap, blotting paper, notepaper, and envelopes is now obtained locally; but the development of paper-making in India has been checked by the competition of cheap wood-pulp paper from Europe, imports of which have increased much faster than the home production. Paper mills.

At the end of 1908 there were 24 breweries, which produced during the year about 5¼ million gallons of beer. The Army Commissariat Department bought 38 per cent. of the production in 1907, under contract, for the use of European soldiers, but in 1908 each regiment was left to make its own arrangements. The largest brewery is at Murree in the Punjab Himalayas, and its output was 928,000 gallons. About 40 per cent. of the whole Indian production was brewed in the Punjab. The quantity of beer imported in 1908 was 4,287,000 gallons. Breweries.

In 1908 there were 117 factories belonging to the State and to local bodies. Among these were 21 printing presses, 22 railway workshops, 8 canal foundries and engineering workshops, and 19 military arsenals and factories. Factories worked by mechanical power, and owned by companies or private persons, numbered 2,473 compared with 2,352 in 1907. In these the average daily number employed was 789,683. A classified list is given in the margin. There were also 522 factories not worked by mechanical power, employing 86,279 persons. Of the 1,090 factories for the ginning, cleaning and pressing of cotton there were 374 in the Central Provinces and Berar, 280 in Bombay, 182 in the Punjab, and 127 in the United Provinces. In Bombay about 190,000 operatives are employed in different branches of the cotton industry. In Madras and the Central Provinces and Berar, as in Bombay, cotton weaving and spinning are the principal industries. In Eastern Bengal and Assam there are many jute presses. Silk filatures and indigo factories are found chiefly in Bengal. Flour mills are most numerous in the Punjab and sugar factories in Bengal. Rice mills and saw mills are most numerous in Burma, rice and teak being the two principal products of the province. They are mainly in European hands and are the only large industries in Burma organised and worked by western methods. Printing presses are numerous in Bengal and Madras. The new factories established in the United Provinces included two sugar mills and an up-to-date flour mill. In the same province some small weaving and knitting factories have been started, and also a factory for dyeing yarn for hand-weavers. Of 16 new factories in Bengal may be mentioned factories for bobbin-making, shoe-making, and cigarette making. Iron and brass foundries (including engineering workshops) number 29 in Bengal and 19 in Bombay. Only one company manufactures iron on European lines in Bengal, and its production is confined to pig-iron. Another firm has arranged to erect blast furnaces and steel rolling mills in the Singhbhum district. Other large industries.

| | No. of Works. | No. of Operatives. |
|---|---|---|
| Cotton presses | 1,090 | 75,722 |
| Cotton mills | 242 | 236,709 |
| Jute presses | 128 | 27,460 |
| Jute mills | 57 | 195,276 |
| Silk filatures | 44 | 5,666 |
| Rice mills | 200 | 21,253 |
| Flour mills | 35 | 2,821 |
| Sugar factories | 23 | 5,625 |
| Saw mills | 105 | 8,477 |
| Iron and brass foundries | 83 | 24,592 |
| Indigo factories | 31 | 18,925 |
| Tile factories | 42 | 6,547 |
| Oil mills | 30 | 2,724 |
| Printing presses | 82 | 16,542 |
| Dockyards | 18 | 11,788 |

## FACTORY LEGISLATION.

The law respecting factories in India is Act XV. of 1881, as amended by Act XI. of 1891. The changes introduced by the latter were, briefly: (1) The law could be

FACTORY LEGISLATION.

applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act; (2) the minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years; (3) the maximum hours for child labour in any one day were reduced from nine hours to seven hours, and night-work was forbidden; (4) the hours of actual labour for women workers, which were unrestricted under the Act of 1881, were limited to 11 hours a day, with intervals amounting to 1½ hours; (5) a rest period during work was prescribed for all labourers.

In December 1906 the Government of India appointed a small Committee, with Commander Sir H. P. Freer-Smith, R.N., late Superintending Inspector for Dangerous Trades in England, as chairman, to conduct a preliminary inquiry into the conditions of factory labour in textile factories in India. The Committee recommended that the working hours of adult males should be limited to 12 hours a day; that before children or adults are allowed to work in factories certificates of age and physical fitness should be required; that night-work of women should be prohibited; and that Medical Inspectors should be appointed. The Committee's report was presented to Parliament in 1907 (Cd. 3617).

The conclusions of this Committee formed the basis of an investigation by a representative Commission, whose report was presented to Parliament in 1908 (Cd. 4292). This report disclosed the existence of abuses, particularly in connection with the employment of children and the excessive hours of operatives generally in textile factories. The majority of the Commission deprecated a statutory limitation of the working hours of male adults. But they recommended the formation of a class of "young persons," between 14 and 17 years of age, whose hours should be limited to 12, and considered that this would indirectly secure a 12 hours' day for male adults. They also recommended that the hours of work for children should be reduced from 7 to 6 hours and that the hours for women should be assimilated to those of "young persons," night-work being prohibited for both classes. They recommended that children should be certified as to age and physical fitness.

The recommendations of the Committee and of the Commission having been considered by the Government of India and the Local Governments, a bill was introduced in July 1909 to amend and consolidate the law relating to factories. The new bill provides, subject to certain exceptions, that in textile factories: (1) No person shall be actually employed for more than 12 hours in any one day; (2) no person shall be employed before 5.30 in the morning or after 7 in the evening; (3) the period for which mechanical power is used shall not in any one day exceed 12 hours; (4) no child shall be employed for more than 6 hours in any one day. Further provision is made for securing the health and safety of the operatives and for making inspection more effective.

The bill has been published and opinions of Local Governments, Chambers of Commerce, and other associations regarding it have been invited, and will be considered before it is proceeded with in the Legislative Council.

FACTORY INSPECTION.

## FACTORY INSPECTION.

The statistics of the factories inspected during 1908 are as follows:—

| PROVINCE. | Number of Factories working, and liable to be inspected. | Average Number of Hands employed daily. | | | | Number of Factories. | | | Number of Persons convicted of breach of Act. | Number of Accidents reported. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men. | Women. | Children. | Total. | With Sunday Holiday. | With other Weekly Holiday. | Exempted or worked otherwise. | | Fatal. | Serious. | Minor. | Total. |
| Bengal | 219 | * | * | * | 301,727 | * | — | * | — | 65 | * | * | 831 |
| United Provinces | 157 | 42,569 | 5,091 | 2,282 | 49,942 | 132 | 23 | 2 | 3 | 13 | 44 | 47 | 104 |
| Punjab | 219 | 21,467 | 3,073 | 1,149 | 25,689 | 159 | 51 | 9 | 3 | 6 | 25 | 254 | 285 |
| North West Frontier Province | 2 | * | * | — | 118 | 2 | — | — | — | — | — | — | — |
| Burma | 255 | 39,427 | 889 | 271 | 40,587 | 211 | 37 | 7 | 2 | 11 | 150 | 139 | 300 |
| Central Provinces and Berar | 323 | 23,357 | 12,495 | 1,767 | 37,619 | 153 | 169 | 1 | 21 | 5 | 76 | 81 | 162 |
| Madras | 153 | 36,486 | 4,250 | 5,415 | 46,151 | * | * | * | * | 10 | 25 | 307 | 342 |
| Bombay | 509 | 174,826 | 43,548 | 11,818 | 230,192 | 353 | 149 | 4 | 27 | 29 | 190 | 1,253 | 1,472 |
| Eastern Bengal and Assam | 101 | 17,545 | 903 | 547 | 18,995 | 38 | — | 63 | 1 | — | 3 | 13 | 16 |
| Ajmere-Merwara† | 5 | 9,394 | 113 | 138 | 9,645 | 4 | 1 | — | — | 4 | 4 | 62 | 70 |
| Total, 1908 | 1,943 | * | * | * | 760,665 | * | * | * | 37 | 143 | * | * | 3,582 |
| Total, 1907 | 1,866 | 576,652 | 103,764 | 49,247 | 729,663 | 1,294 | 437 | 135 | 36 | 120 | 833 | 2,797 | 3,750 |

* Information not yet available. † Figures for 1907.

In 1908 the law was generally well observed as regards sanitation and water supply. In Bombay City and in the Punjab, however, constant attention had to be paid to the condition of the latrine accommodation in some of the factories. Measures

FACTORY INSPECTION.

have been taken in Bombay to secure better ventilation in factories. The humidity in weaving sheds was often excessive, especially in Ahmedabad. In some places, particularly in Ahmedabad, in Howrah (Calcutta), Berar, and the Punjab, there were breaches of the law regarding child labour. In the Bengal jute mills there were general efforts to improve ventilation and to provide well-built houses for operatives, and septic tanks were installed in many of the mills. There were some complaints in Bombay and Rangoon of imperfect fencing of machinery. Accidents in mills are said to be largely due to the carelessness of the operatives. Out of 162 accidents in the Central Provinces 67 occurred in the Gun Carriage Factory at Jubbulpore, mainly ascribed to carelessness. Proposals are under discussion for increasing the inspecting staff in the several provinces.

## PATENTS AND DESIGNS.

PATENTS AND DESIGNS.

The laws for granting exclusive privileges to inventors and for protecting patents and designs were amended and consolidated by the passing of the Inventions and Designs Act (V. of 1888). Proposals for amending this Act are under consideration.

The total number of applications for leave to file a specification under the Act in 1909 was 615, or 64 more than in 1908. Of these, 47 were refused or abandoned, and 117 were undecided at the end of the year. Only 63 of the applications were made by natives of India, 135 were made by Europeans and others resident in India, while 417 came from outside India, of which 217 were from the United Kingdom. The range of inventions for which protection was sought was, as usual, very wide, and, as in previous years, those relating to railways, electrical contrivances, chemical appliances and preparations, and textile industries predominated. Exclusive privileges were kept alive by payment of prescribed fees in 678 cases, while 449 ceased. Applications for the registration of designs numbered 51, of which 37 were allowed.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

# CHAPTER X.

TRADE.

## TRADE.

*(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks: Tables of the Trade of British India, Review of the Trade of India, and the Statistical Abstract for British India, Tables 136 to 176.)*

### FOREIGN SEABORNE TRADE.

Foreign seaborne trade.

The foreign seaborne trade of India has greatly increased during the last 26 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). It will be observed that the percentage growth has been greater in imports, though the absolute increase has been larger in exports, until the serious fall in 1908–9.

| Year. | Imports. | Exports of Indian Merchandise. |
|---|---|---|
| | 000£ | 000£ |
| Year 1882–3 - - - | 33,335 | 53,732 |
| Average—1883–4 to 1887–8 | 37,161 | 55,655 |
| „ 1888–9 „ 1892–3 | 44,181 | 65,752 |
| „ 1893–4 „ 1897–8 | 47,267 | 67,865 |
| „ 1898–9 „ 1902–3 | 50,090 | 75,504 |
| „ 1903–4 „ 1907–8 | 69,700 | 107,796 |
| Year 1908–9 - - - | 80,844 | 99,883 |

The foreign seaborne trade of British India during the five years to 31st March 1909 was as follows :—

| | 1904–5. | 1905–6. | 1906–7. | 1907–8. | 1908–9. |
|---|---|---|---|---|---|
| Imports : | £ | £ | £ | £ | £ |
| Private Merchandise - - - - - | 64,452,192 | 68,722,713 | 72,205,055 | 86,596,729 | 80,843,818 |
| Government Stores - - - - - | 5,156,305 | 6,019,781 | 5,956,410 | 4,428,635 | 5,008,301 |
| Total Merchandise - - - - | 69,608,497 | 74,742,494 | 78,161,465 | 91,025,364 | 85,852,119 |
| Treasure, Private - - - - - | 22,018,353 | 13,947,526 | 18,133,990 | 21,880,286 | 15,087,902 |
| „ Government - - - - - | 4,320,430 | 7,153,150 | 11,585,884 | 6,309,379 | 74,876 |
| Total Treasure - - - - - | 26,338,783 | 21,100,676 | 29,719,874 | 28,189,665 | 15,162,778 |
| Total Imports - - - - | 95,947,280 | 95,843,170 | 107,881,339 | 119,215,029 | 101,014,897 |
| Exports : | | | | | |
| Private Merchandise : | | | | | |
| Indian Produce and Manufactures - - - | 102,760,848 | 105,459,482 | 115,388,309 | 115,652,151 | 99,882,633 |
| Foreign ditto - - - - - - | 2,248,715 | 2,352,540 | 2,322,693 | 2,511,557 | 2,113,820 |
| Government Stores : Indian - - - - | 138,472 | 78,392 | 71,940 | 84,921 | 76,800 |
| Total Merchandise - - - - | 105,148,035 | 107,890,414 | 117,782,642 | 118,248,629 | 102,073,253 |
| Treasure, Private - - - - - | 5,392,377 | 4,299,838 | 3,808,672 | 3,630,819 | 3,971,116 |
| „ Government - - - - - | 5,634,834 | 6,013,499 | 3,497 | 1,514 | 242,382 |
| Total Treasure - - - - - | 11,027,211 | 10,313,337 | 3,812,169 | 3,632,333 | 4,213,498 |
| Total Exports - - - - | 116,175,246 | 118,203,751 | 121,594,811 | 121,880,962 | 106,286,751 |
| Total Sea-borne Trade - - - - | 212,122,526 | 214,046,921 | 229,476,150 | 241,095,991 | 207,301,648 |
| Net Exports of Merchandise - - - - | 35,539,538 | 33,147,920 | 39,621,177 | 27,223,265 | 16,221,134 |
| Net Imports of Treasure - - - - - | 15,311,572 | 10,787,339 | 25,907,705 | 24,557,332 | 10,949,280 |
| Net excess of Exports (balance of trade) - - - | 20,227,966 | 22,360,581 | 13,713,472 | 2,665,933 | 5,271,854 |

The marked decline in imports and exports in 1908–9 was due principally to the widespread failure of crops, especially in Northern India, and to the high range of prices of food-grains. The net excess of exports was small.

TRADE.

Principal imports and exports.

The following table shows the values of the chief articles of merchandise imported and exported during the last three years (in thousands of pounds) :—

| Principal Imports. | | | | Principal Exports (Indian Merchandise). | | | |
|---|---|---|---|---|---|---|---|
| Articles. | 1906–7. | 1907–8. | 1908–9. | Articles. | 1906–7. | 1907–8. | 1908–9. |
| | 000£ | 000£ | 000£ | | 000£ | 000£ | 000£ |
| Cotton manufactures - | 25,130 | 29,566 | 22,911 | Jute, raw - - | 17,892 | 11,982 | 13,223 |
| „ yarn - - | 2,149 | 2,462 | 2,433 | Cotton, raw - - | 14,652 | 17,135 | 13,179 |
| Metals - - - | 6,693 | 8,794 | 8,669 | Rice - - - | 12,353 | 13,559 | 10,592 |
| Sugar - - - | 5,825 | 6,151 | 7,271 | Jute manufactures - | 10,477 | 12,198 | 10,491 |
| Railway material - | 2,772 | 4,801 | 4,947 | Hides and skins - | 10,230 | 7,301 | 8,312 |
| Machinery and millwork | 3,860 | 4,390 | 4,411 | Seeds - - - | 8,681 | 11,210 | 7,785 |
| Mineral oils - - | 1,618 | 2,129 | 2,606 | Tea - - - | 6,572 | 6,867 | 6,929 |
| Hardware and cutlery - | 1,769 | 2,110 | 1,951 | Cotton yarn - - | 6,931 | 5,982 | 6,454 |
| Woollen goods - - | 1,368 | 1,845 | 1,941 | Opium - - - | 6,205 | 5,782 | 6,233 |
| Provisions - - - | 1,616 | 1,827 | 1,875 | Lac - - - | 2,333 | 2,722 | 1,863 |
| Apparel - - - | 2,408 | 1,722 | 1,612 | Wool, raw - - | 1,618 | 1,402 | 1,389 |
| Silk manufactures - | 1,217 | 1,423 | 1,521 | Wheat and wheat-flour | 5,227 | 6,097 | 1,241 |
| Liquors - - - | 1,238 | 1,337 | 1,323 | Cotton manufactures- | 1,181 | 1,196 | 1,238 |
| Spices - - - | 960 | 1,041 | 916 | Coffee - - - | 664 | 743 | 927 |

Imports of merchandise.

The restriction in the purchasing power of the people, resulting from bad harvests, led to a great decline in imports of cotton goods after three years of active trade. There was a further increase in the imports of sugar, which is mostly cane sugar from Java and Mauritius. Java, which obtained a footing in the Indian markets when the imposition of countervailing duties restricted supplies of beet sugar, provided in 1908–9 about 53 per cent. of the imports of refined sugar, besides sending large quantities of molasses and unrefined sugar. The progress in imports of metals, chiefly iron, steel, and copper, and of machinery and millwork, is evidence of activity in indigenous mining and manufacturing enterprise. Among articles the increasing imports of which point to the growing prosperity of the people may be mentioned silk and woollen goods, sugar, mineral oils, hardware and cutlery, provisions, cigarettes, and glass and glassware. As there is a large number of State railways, the Government imports of railway material should be added to the figures given above, thus bringing the total value of railway material imported to £7,960,000. Railway material constitutes more than one half of the Government imports of stores.

Exports of Indian merchandise.

The table brings out clearly the immense preponderance amongst Indian exports of raw agricultural produce, and the figures fluctuate widely according to the character of the season. The unfavourable season of 1907–8 caused a decline in the exports during 1908–9 of raw cotton, rice, seeds, and especially wheat. The strong internal demand for rice and wheat curtailed the exports still further. The exports of raw jute were much greater, in spite of a decrease in prices. But in jute manufactures there was a smaller business, due to the inactive demand. Hides and skins rose in quantity and value. The tea trade showed further growth, but prices were lower than in 1907–8. The coffee trade was less active. Opium yielded better results. The improved state of the China market mainly explains the increase in exports of cotton yarn and cloth. The trade in lac was less prosperous.

Further details with regard to the trade in some of the principal agricultural products are given in Chapter V.

Re-exports.

The value of foreign merchandise re-exported from India is relatively small, and the trade is not progressive. Of the total in 1908–9, £2,113,820, cotton goods shipped to the Persian Gulf, Arabia, East Africa, &c. formed about 35 per cent. of the total.

Trade by countries.

In comparing the magnitude of the trade of different countries with India great care is necessary. In the returns imports are classified according to the countries whence they were shipped direct to India and not according to the countries of production, while exports are ordinarily credited to the countries containing the ports at which the goods are discharged, whether destined for those countries or not. Much of the trade shown as to or from Holland and Belgium is really trade with Germany, and Switzerland does a large trade with India through other countries. The figures as they stand show that the share of the United Kingdom in the total trade in private merchandise in 1908–9 was 41·1 per cent.; while that of Germany was 7·3; of China, 7·5; of the United States, 6·0; of Belgium, 4·1; and of France, 4·2 per cent. Taking imports and exports separately, about 63 per cent. of the import trade

TRADE. (exclusive of Government stores) and 24 per cent. of the export trade was conducted with the United Kingdom. In consequence, however, of the re-exports of Indian produce, the proportion retained in England is considerably lower. The proportion of the trade assignable to other parts of the British Empire cannot be stated accurately, since the large transactions with Aden, Ceylon, the Straits Settlements, and Hong Kong, which are chiefly distributing centres, are really for the most part trade with foreign countries. As regards the self-governing colonies, the largest trade was done with Australia (£2,258,000).

The value of India's trade in private merchandise with the chief countries, for the last three years, has been as follows (in thousands of pounds) :—

| Countries. | Imports from | | | Exports (Indian Merchandise) to | | |
|---|---|---|---|---|---|---|
| | 1906-7. | 1907-8. | 1908-9. | 1906-7. | 1907-8. | 1908-9. |
| | 000£ | 000£ | 000£ | 000£ | 000£ | 000£ |
| United Kingdom | 48,199 | 57,758 | 50,618 | 31,290 | 29,936 | 24,048 |
| Germany | 3,861 | 3,443 | 3,286 | 13,150 | 13,494 | 10,199 |
| China (including Hong Kong) | 995 | 1,466 | 1,550 | 12,568 | 9,989 | 11,975 |
| United States | 1,698 | 2,158 | 2,176 | 10,416 | 9,012 | 8,807 |
| Belgium | 2,904 | 3,538 | 3,447 | 4,799 | 6,097 | 4,120 |
| France | 975 | 1,355 | 1,207 | 7,470 | 7,670 | 6,402 |
| Japan | 1,073 | 1,445 | 1,411 | 4,730 | 5,914 | 4,782 |
| Straits Settlements | 1,846 | 2,097 | 2,334 | 4,353 | 4,547 | 3,504 |
| Austria-Hungary | 2,046 | 1,770 | 2,578 | 4,012 | 4,234 | 3,220 |
| Ceylon | 566 | 630 | 469 | 4,254 | 4,167 | 3,877 |
| Italy | 721 | 795 | 756 | 3,804 | 3,695 | 3,357 |
| Mauritius | 1,445 | 1,643 | 1,715 | 833 | 735 | 787 |
| Turkey | 343 | 334 | 381 | 790 | 1,295 | 1,168 |
| Russia | 72 | 268 | 186 | 494 | 648 | 678 |

A return has been prepared showing imports according to countries of consignment and exports according to countries of final destination in 1907-8. It appears from this return that the distribution of trade as given above is substantially accurate, except in the case of Germany and Belgium, imports from which were £5,125,789 and £1,388,023, and exports thereto £13,883,169 and £5,771,212 respectively, in that year.

The trade with China consists mainly in the exportation thereto of opium and cotton yarn, while silk and silk goods and tea are imported.

Germany sends chiefly woollen goods, cotton goods, musical instruments, liquors, paper, steel, iron, copper and other metals, hardware and cutlery, machinery, dyes, apparel, &c. in exchange for raw cotton and jute, raw hides and skins, rice, lac, oilseeds, &c. She buys far more than she sells to India. Belgium takes raw cotton, oilseeds, manganese ore, hemp, jute and jute goods, wheat, rice, &c. in exchange for iron, steel, dyes, glass, hardware, and cutlery, cotton goods, &c. France buys large quantities of raw jute and cotton, lac, coffee, raw silk, hides and skins, and oilseeds, and sells apparel, silk goods, and liquors. The United States buys large quantities of jute, raw and manufactured, hides and skins, and lac, and sells mineral oil, tobacco, cotton goods, and iron and steel.

Trade of chief ports. The following figures show the proportionate share of the six chief ports in the private trade with foreign countries in merchandise only :—

| Port. | Imports (percentages). | | | | Exports (percentages). | | | |
|---|---|---|---|---|---|---|---|---|
| | 1905-6. | 1906-7. | 1907-8. | 1908-9. | 1905-6. | 1906-7. | 1907-8. | 1908-9. |
| Calcutta | 40·4 | 38·9 | 40·5 | 36·5 | 41·9 | 44·4 | 39·5 | 43·3 |
| Bombay | 35·4 | 35·1 | 34·5 | 33·3 | 30·0 | 25·7 | 27·5 | 27·5 |
| Karachi (Sind) | 8·4 | 8·7 | 8·1 | 9·3 | 7·1 | 8·9 | 10·2 | 5·6 |
| Madras | 6·1 | 7·1 | 6·6 | 8·0 | 3·6 | 3·8 | 3·5 | 3·7 |
| Rangoon | 7·8 | 8·4 | 8·4 | 10·6 | 8·1 | 6·9 | 8·0 | 6·1 |
| Chittagong | 0·3 | 0·3 | 0·4 | 0·5 | 1·8 | 2·2 | 2·1 | 3·1 |

The value of the exports from Calcutta was reduced by a decline in the trade in jute manufactures, lac, oilseeds, &c., while imports were lower owing mainly to reduced imports of cotton goods. The decrease in exports from Bombay was due to the smaller shipments of seeds, cotton, &c., while imports declined chiefly because of diminished purchases of cotton goods.

TRADE.

The net import of gold, which had been exceptionally large in 1906–7 and 1907–8, fell from £13,835,000 to £5,603,000. The net import of silver, which had also been unusually great in the two previous years, decreased from £14,355,000 to £9,560,000. Treasure.

The balance of trade rose from the unprecedentedly low sum of £2,666,000, in 1907–8 to £5,272,000. Balance of trade.

The figures relate only to the trade of British Indian ports, and exclude land frontier trade, the trade of certain Native States on the west coast, the trade of French and Portuguese possessions, private remittances to and from India, and precious stones and pearls re-exported by post.

## Land Frontier Trade.

Land frontier trade.

| | Imports. | Exports. | Total. |
|---|---|---|---|
| | 000£ | 000£ | 000£ |
| 1906-7 | 5,151 | 4,275 | 9,426 |
| 1907-8 | 5,670 | 4,643 | 10,313 |
| 1908-9 | 5,526 | 4,640 | 10,166 |

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a large and increasing trade with Afghanistan, Nepal, Western China, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), sugar, metals, salt, spices, and fish; and the chief imports into India, rice and other grains, provisions, wood, fruits, living animals, wool, hides and skins, oilseeds, drugs, and raw silk.

## Coasting Trade.

Coasting trade.

The combined import and export trade in merchandise carried by coasting vessels amounted to £38,433,000 during 1908–9, or 2 per cent. less than in 1907–8. This amount is arrived at by adding to the value of the imports into British ports from other British ports the sum of the imports and exports in the trade between British and non-British ports in India. The chief increase was in rice, a large quantity of which was exported from Burma to Bengal, Madras, and Bombay. Coal shipments from Bengal were larger. Burma sent slightly smaller supplies of mineral oil, and Bombay smaller quantities of cotton piece goods to Indian ports.

## Shipping.

Shipping.

During 1908–9 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,001, with a tonnage of 12,910,823, a decrease of 6·4 per cent., as compared with 1907–8. Of the total, 98 per cent. was steam tonnage.

The entries from and clearances to the United Kingdom were 2,871,129 tons, as against 3,119,233 tons in 1907–8.

The number of vessels under the principal flags is given below:—

| Nationality. | 1904–5. | 1905–6. | 1906–7. | 1907–8. | 1908–9. |
|---|---|---|---|---|---|
| British | 5,633 | 4,838 | 4,918 | 4,785 | 4,238 |
| German | 339 | 387 | 371 | 375 | 437 |
| Austro-Hungarian | 156 | 162 | 159 | 157 | 156 |
| Norwegian | 141 | 174 | 195 | 188 | 106 |
| Japanese | — | 2 | 83 | 123 | 79 |
| Italian | 74 | 85 | 77 | 79 | 76 |
| French | 94 | 105 | 67 | 61 | 55 |

## Freights.

Freights.

The freight market in 1908–9 was extraordinarily dull throughout the world, and with the contraction in India's exports, rates to England were generally low. The following statement gives minimum quotations for typical rates of freight from the chief Indian ports to London in March of each of the last five years:—

| | 1905. | 1906. | 1907. | 1908. | 1909. |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Calcutta—Rice | 1 0 0 | 0 15 0 | 0 17 6 | 0 15 0 | 0 15 0 |
| Wheat | 1 0 0 | 0 15 0 | 0 17 6 | 0 15 0 | 0 15 0 |
| Jute | 1 2 6 | 0 17 6 | 1 0 0 | 0 17 6 | 0 17 6 |
| Linseed | 1 2 6 | 0 17 6 | 1 0 0 | 0 17 6 | 0 17 6 |
| Tea | 1 16 3 | 1 13 9 | 1 15 0 | 1 12 6 | 1 12 6 |
| Bombay—Wheat and seeds | 0 15 0 | 0 13 6 | 0 15 0 | 0 13 0 | 0 12 0 |
| Cotton (to Liverpool) | 0 15 6 | 0 14 6 | 0 15 0 | 0 12 0 | 0 11 0 |
| Karachi—Wheat (to Liverpool) | 0 15 6 | 0 14 0 | 0 15 0 | 0 10 0 | 0 13 0 |

TRADE.

## WORKING OF THE MERCHANDISE MARKS ACT.

*(For further details, see Statistical Abstract for British India, Table 179.)*

Working of the Merchandise Act.

The Indian Merchandise Marks Act (IV. of 1889) was passed to prevent the fraudulent sale of goods bearing false trade marks or false trade descriptions (as of origin, quality, weight, or quantity). The Act also requires that all piece-goods must be stamped with their length in yards. The following statistics for 1908–9 are preliminary only. Out of 1,326 detentions under the Act, 308 were on account of counterfeit trade marks or false trade descriptions, 767 (an exceptionally large number) for non-description or false description of origin and 250 for unstamped or insufficiently stamped piece-goods. Detention is rarely followed by confiscation. Goods were released with a fine in 615, and without a fine in 710, cases. A "Merchandise Marks Manual" was published in 1908.

## JOINT STOCK COMPANIES.

*(For further details, see Statistical Abstract for British India, Tables 210–11.)*

Joint Stock Companies.

During the year 1907–8 there were 289 new companies registered in India under the Companies Act (VI. of 1882), with a paid-up capital of about £462,000, while 151, with a capital of £509,000, ceased to work. The aggregate paid-up capital of 695 companies was increased by £4,625,000, while 86 companies reduced their paid-up capital by £73,000. The net result was that at the end of the year there were in operation 2,061 companies, with a paid-up capital of £33,876,000. There has been an increase of 57 per cent. in the paid-up capital in the last 10 years. The companies are most important in the provinces of Bengal and Bombay, which possess 40 and 38 per cent. respectively of all the paid-up capital, while the share of Madras, which comes next, was less than 9 per cent. of the whole. The average of paid-up capital is highest in Bengal, where it amounts to £26,600, while in Bombay it is £25,800. In Madras 311 money-lenders, mostly carrying on a small business, are registered under the Companies Act. The distribution of paid-up capital among registered companies of the different classes was as follows :—

| | £ | | £ |
|---|---|---|---|
| Banking loan and insurance | 4,595,000 | Mills and presses - - | 15,667,000 |
| Trading and shipping - | 6,694,000 | Tea and planting - - | 2,404,000 |
| Mining and quarrying - | 2,826,000 | Other industries - - | 1,690,000 |

(The capital stated above represents in all cases share capital only ; the total value of the debentures issued amounted to £4,567,000.)

As will be seen, the largest aggregate paid-up capital, £15,667,000, constituting nearly half the total, was invested in cotton, jute, and other mills and presses ; and about 52 per cent. of the capital of such undertakings was invested (mostly in cotton mills and presses) in Bombay Presidency. Nearly a third of the capital of trading companies is invested in railways and tramways. The capital invested in coal companies (more than 97 per cent. of which is in Bengal) has more than doubled in the last 10 years.

There are, so far as is known, 227 companies which carry on work with sterling capital exclusively, or almost exclusively, in India, but which are registered elsewhere, and their paid-up capital amounts to £73,872,404, besides £37,862,898 debentures. The railways represent £42,657,510 paid-up capital and £34,040,600 debentures. Of the rest the sterling share capital invested in the tea industry is £13,495,600, in jute mills £2,308,900, in cotton mills £798,500, in rice mills £852,000, and in gold fields £2,744,000. Thus, while the railway, gold, and tea concerns are mainly financed from abroad, the great bulk of the mill and press companies are registered in India.

# CHAPTER XI.

## PUBLIC WORKS.



GENERAL. | IRRIGATION.
RAILWAYS. | BUILDINGS AND ROADS (CIVIL).

### GENERAL.

General.

The operations included under the head of "Public Works" are of three kinds, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the control of the Government of India, or of the Railway Board, in so far as the powers of the Government of India have been delegated to it. The establishment employed on irrigation and on buildings and roads is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railways and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1908–9 is compiled from the Finance and Revenue Accounts :—

| — | Receipts. | Expenditure. | | |
|---|---|---|---|---|
| | | — | Charged to Revenue. | Not charged to Revenue. |
| | £ | | £ | £ |
| Railways | 26,871,130 | Construction | 415 | 9,488,168 |
| | | On Revenue Account | 28,113,380 | — |
| Irrigation | 3,558,002 | Construction | — | 983,489 |
| | | „ from Famine Relief Grant | 403,030 | — |
| | | On Revenue Account | 2,949,179 | — |
| Buildings and roads | 287,938 | Civil Works | 4,495,927 | — |
| TOTAL | 30,717,070 | | 35,961,931 | 10,471,657 |

The expenditure charged against revenue includes the following items of "Interest on Debt" :—Railways, £5,535,946; Irrigation, £1,017,327.

Of the permanent public debt on the 31st of March 1909, £182,213,141 is classed as incurred for railways and £30,738,991 for irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £3,268,132.

The engineer establishments of the Department are divided into (*a*) the Public Works Department and (*b*) the Public Works Department (Railway Branch). These establishments, including those of Bombay and Madras, but excluding that of the now separate Military Works Department, were considerably increased during the year. The upper subordinate engineering staff is largely composed of Indians.

PUBLIC WORKS.

The following statement shows the strength of the superior engineer and upper subordinate establishments as they stood on the 30th June in 1908 and 1907 :—

| — | | Public Works Department. | | | Public Works Department (Railway Branch). | Total. |
|---|---|---|---|---|---|---|
| | | India. | Madras. | Bombay. | | |
| Civil Engineers (including Military Officers) | 1908 | 479 | 87 | 94 | 176 | 836 |
| | 1907 | 479 | 83 | 91 | 176 | 829 |
| Upper Subordinates | 1908 | 553 | 178 | 224 | 69 | 1,024 |
| | 1907 | 517 | 177 | 215 | 72 | 981 |

RAILWAYS.

## RAILWAYS.

*For further details see Statistical Abstract for British India Tables 44 to 47, 74-5, and 126 to 134.*

Financial results to the State.

In the financial year 1908-9 there was a net loss of £1,242,250 as shown in the following table :—

| — | Imperial. | Provincial. | England. (Sterling converted at £1=Rs. 15.) | TOTAL. |
|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ |
| Railways— | | | | |
| State railways—(Gross traffic receipts) | 26,790,955 | 6,640 | 2,293 | 26,799,888 |
| Guaranteed companies—(Net traffic receipts) | — *961* | — | — | — *961* |
| Subsidised companies—(Repayment of advances of interest). | 15,972 | — | 56,231 | 72,203 |
| TOTAL - - - £ | 26,805,966 | 6,640 | 58,524 | 26,871,130 |
| EXPENDITURE. | | | | |
| Railway Revenue Account— | | | | |
| State Railways— | | | | |
| Working expenses | 16,586,803 | 5,397 | — | 16,592,200 |
| Share of surplus profits, &c. | 320,889 | — | — | 320,889 |
| Interest on debt | 2,502,107 | — | 3,033,839 | 5,535,946 |
| Annuities in the purchase of railways | — | — | 3,268,132 | 3,268,132 |
| Sinking funds | — | — | 159,491 | 159,491 |
| Interest chargeable against companies on advances. | 259,589 | — | 219,213 | 478,802 |
| Interest on capital deposited by companies | 80,025 | — | 1,569,171 | 1,649,196 |
| Guaranteed companies— | | | | |
| Surplus profits, land and supervision | 12,743 | — | — | 12,743 |
| Subsidised companies— | | | | |
| Land, &c. | 67,937 | 2,928 | — | 70,865 |
| Miscellaneous railway expenditure | 19,598 | 5,518 | — | 25,116 |
| TOTAL - - - - £ | 19,849,691 | 13,843 | 8,249,846 | 28,113,380 |
| | | | Net loss - - £ | 1,242,250 |

In the figures of expenditure are included all charges falling on the Government for the management and working expenses of railways, for interest on capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind Punjab and Delhi, and Great Indian Peninsula railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for control, for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

Statistical results of working.

The statistical results of working the various railways during 1909 are given in the following table. The aggregate net earnings of all Indian railways, including steamboat service and suspense items, but excluding indirect charges, produced a return of 4·74 per cent. on the total capital outlay on open lines, against 4·33 per cent. in the previous year.

| Class. | Length of Line open on the 31st December 1909. | Total Capital Outlay on Open Lines to the 31st December 1909, including Steamboat and Suspense. | Total Number of Passengers carried. | Total Weight of Goods carried. | Gross Earnings, including Steamboat Service. | Working Expenses, including Steamboat Service. | Net Earnings, including Steamboat Service. | Percentage of Net Earnings on Capital Outlay on Open Lines. |
|---|---|---|---|---|---|---|---|---|
| *All Gauges.* | Miles. | £ | No. | Tons. | £ | £ | £ | |
| State lines worked by the State | 6,571·20 | 73,961,533 | 73,514,800 | 16,553,000 | 7,394,333 | 5,098,133 | 2,296,200 | — |
| State lines worked by companies* | 17,839·46 | 180,224,933 | 200,315,200 | 40,768,000 | 20,577,934 | 10,962,067 | 9,615,867 | — |
| Companies' lines guaranteed under modern contracts. | 32·04 | 197,734 | 319,400 | 74,000 | 24,266 | 12,133 | 12,133 | — |
| District Boards' lines | 155·16 | 462,400 | 2,874,000 | 225,000 | 67,267 | 37,200 | 30,067 | — |
| Assisted companies' lines | 3,092·51 | 13,918,400 | 37,049,200 | 5,381,000 | 1,573,200 | 750,200 | 823,000 | — |
| Unassisted companies' lines | 33·27 | 72,933 | 537,200 | 46,000 | 8,333 | 5,800 | 2,533 | — |
| Lines owned by Native States and worked by companies. | 2,000·81 | 9,916,400 | 13,247,500 | 2,194,000 | 809,734 | 403,267 | 406,467 | — |
| Lines owned by Native States and worked by State railway agency. | 235·28 | 921,533 | 3,860,700 | 676,000 | 141,200 | 73,733 | 67,467 | — |
| Lines owned and worked by Native States. | 1,452·02 | 3,447,467 | 5,405,900 | 916,000 | 427,400 | 233,867 | 193,533 | — |
| Lines in foreign territory | 73·60 | 1,224,267 | 969,000 | 367,000 | 47,733 | 29,133 | 18,600 | — |
| TOTAL OF ALL RAILWAYS, 1909 | 31,485·35 | 284,347,600 | 338,092,900 | 67,200,000 | 31,071,400 | 17,605,533 | 13,465,867 | 4·74 |
| Ditto 1908† | 30,570·23 | 274,611,600 | 321,169,000 | 62,398,000 | 29,884,600 | 18,001,667 | 11,882,933 | 4·33 |

* The Birur-Shimoga, Hindupur, and Mysore-Nanjangud railways are included with the Mysore State railway under this classification, as separate figures for these lines are not available.

† As corrected from later information.

It will be observed that, with an increase of 915·12 miles, or 2·99 per cent., in the open mileage, as compared with 1908, the gross earnings increased by £1,186,800, or 3·97 per cent., while the working expenses decreased by £396,134, or 2·20 per cent., resulting in an improvement of £1,582,934 in the net earnings.

Mileage opened and under construction.

The total railway mileage opened, under construction, and sanctioned for construction during the year was as follows:—

| Gauge. | Miles opened. | Miles sanctioned for construction. | Total Mileage under construction or sanctioned at the close of the Year. |
|---|---|---|---|
| 5′ 6″ gauge | 356·84 | 204·04 | 1,484·07 |
| 3′ 3⅜″ „ | 461·00 | 355·52 | 761·16 |
| 2′ 6″ „ | 96·28 | 494·13 | 712·30 |
| 2′ 0″ „ | — | 11·02 | |
| Total | 914·12 | 1,064·71 | 2,957·53 |
| *Add* correction of mileage | 1·00 | | |
| Net total addition to open mileage | 915·12 | | |

The northern section of the Nagda Muttra railway, from Kotah to Muttra, 202·72 miles, was completed and opened through for traffic from 1st October 1909. This railway connection, which traverses 12 Native States in Central India and Rajputana, provides the shortest through route on the standard gauge between the port of Bombay and the United Provinces and the Punjab, and is expected to develop trade through a rich grain-producing country. Its protective value is also great as a feeder and distributory line in the event of the recurrence of famine in that part of the country. The other lines opened during the year included the Katihar-Godagari railway, 107·39 miles; the Gauhati extension of the Eastern Bengal State railway, 111·92 miles; the Degana-Marwar Frontier railway, 61·32 miles; the Lodhran-Khanewal and Chichoki-Jaranwala branches of the North-Western railway, 56·59 and 48 miles respectively, and 18 other lines of shorter length.

Among the lines sanctioned for construction during the year, the most important were the Phaphamau-Unao branch of the Oudh and Rohilkund railway, 114·58 miles; the Nagpur-Chindwara railway, 94·39 miles; the Kalabagh-Bannu branch of the North-Western railway, 83·21 miles; the Pilibhit-Shahjahanpur extension of the Rohilkund and Kumaon railway, 56·82 miles; and the Purna-Hingoli branch of the Hyderabad Godavery Valley railway, 50·26 miles.

RAILWAYS.

Important works completed and in progress.

Full particulars in regard to the works completed and in progress during 1909, and projects for new lines under consideration during the year, will be given in the Administration Report on Indian Railways for 1909, which will be published as a Parliamentary Paper. A few details of the more important works of the year are, however, given below.

Important works in progress during the year included the Sutlej Valley (Kasur-Lodhran) railway, 209·26 miles; the Allahabad-Rae Bareilly-Cawnpore extension, Oudh and Rohilkund railway, 153·31 miles; the Shorkot Road-Chichoki railway, 135·8 miles; the Balamau Sitapur and Rosa Sitapur branches of the Oudh and Rohilkund railway, 88·48 miles; the Benares Allahabad and Balamau Sitapur extensions of the Bengal and North-Western railway, 75·96 miles, and 59·79 miles respectively; and the Dharmapuri Hosur extension of the Morappur Dharmapuri railway, 60·50 miles. A new bridge on the 5′ 6″ gauge over the Ganges at Cawnpore was under construction; other bridges in hand during the year included the Sutlej and Beas bridges on the North-Western railway, the Sagaing bridge on the Burma railways, bridges by the Bengal and North-Western railway over the Gundak at Bagaha, the Gogra at Manjhi Ghat and the Ganges at Jhoosi, and by the Tirhoot railway over the Bagmatti and Korai rivers. An open viaduct across the Pamban Channel, with a swing bridge, was also under construction by the South Indian Railway Company, with a view to effecting through railway communication between the mainland and the island of Rameswaram. The site of the Sara bridge was definitely fixed at three miles below Sara, and preliminary operations have been commenced. The conversion of the Cooch Behar railway from the 2′ 6″ gauge to the metre gauge was in progress and is shortly expected to be completed.

Projects for new lines.

Among the projects for new lines which were under consideration during the year, the most important were the Bombay Sind connection, which it was decided should be held in abeyance for the present; the Rangiya Tangla branch of the Eastern Bengal State railway, and the Samastipur-Roserha extension of the Tirhoot State railway which were sanctioned; the Murtazapur Pisgaon line for which the concession lapsed owing to the promoters failing to comply with its conditions within the stipulated period; and the Thawe-Tewaripatti-Captainganj extension of the Bengal and North-Western railway which is still under consideration. Proposals were received from private promotors for the construction of lines from Agra to Hathras, Dholka to Dholera *viâ* Gamph, Murtazapur to Ellichpur (Central Provinces), Bodeli (on the Gaekwar's Mehsana railway) to Barwaha (on the Rajputana-Malwa railway), Broach to Jambusar, Dabhoda to Ambaji Mata, and Nabiad to Kapadvanj. The Madras and Southern Mahratta, Southern Punjab, South Indian, Darjeeling-Himalayan and Sind Light Railways Companies are also negotiating for extensions of their respective systems. The Government of India have also received proposals for various light railways and tramways in Aden and India which were still under consideration at the close of the year under review.

Rolling stock and safety appliances.

For the year 1909–10, a provision of Rs. 650 lakhs was made for additional rolling-stock for open lines of railway. This provision is Rs. 102¼ lakhs in excess of that made for the same purpose for the previous year 1908–9. The additions made during the year 1909 to the rolling stock of the principal lines consisted of 364 engines, 756 coaching vehicles and 8,931 goods vehicles, the number under supply at the end of the year being 135 engines, 1,447 coaching vehicles and 5,714 goods vehicles.

Good progress is being made in the provision of automatic brakes, communication gear between passengers and the train staff, electric lighting in upper class carriages and gas lighting in all other carriages, and in the removal of continuous foot boards and horizontal hand-rails.

Interlocking and block working.

The question has been under consideration of improving the rules for the design and inspection of signalling and interlocking in the direction of relaxing to a certain extent the conditions which have hitherto been in operation and of allowing more economical schemes of interlocking to be installed without any sacrifice of safety in traffic working, and a small committee has been appointed to investigate the question and make recommendations.

Damages by flood and rainfall.

Owing to heavy rains throughout the year, breaches occurred on the Bengal Nagpur, Ahmedabad Dholka, Eastern Bengal, Mymensingh Jagannathganj, East Indian, Gwalior, Madras and Southern Mahratta, Nizam's, North Western, South Indian, Bengal and North Western and Burma railway systems. The interruptions to traffic were very considerable; on certain sections of the North Western the damages were

so severe that it was more than a week before through communication was restored. Breaches by the sea occurred in several places on the South Indian railway between Rameswaram and Danishkodi, and traffic was stopped for three days. RAILWAYS.

Serious accidents occurred during the year on the Burma railways, resulting in the death of nine persons and injuries to fourteen others, on the Hardwar Dehra railway when eight persons were killed and eleven injured, and on the Madras and Southern Mahratta railway when fifteen persons were killed and fifteen injured. The damages to rolling stock were considerable, estimated in the first two cases at Rs. 77,000 and Rs. 100,261 respectively. Accidents.

The concessions granted by the North Western and Oudh and Rohilkund railways to Afghan trade passing through Nushki, which were referred to in last year's report, were extended for a further period of three years from 1st April 1909. Rebate on Afghan trade.

With a view to the closer control over the revenue and expenditure of railways, the Railway Board issued orders in June 1909, requiring the careful monthly examination by Railway Administrations of the progress of expenditure as compared with the budget grant and the submission to the Board of a monthly return showing results of this comparison. For the same purpose orders were issued requiring the Establishment Rolls and Working Estimates to be prepared for the official year, showing expenditure on special works and renewals separately from ordinary recurring charges, so that a proper control may be exercised from year to year over each class of expenditure. Control over revenue and expenditure.

This subject has been under correspondence between the Secretary of State and the Government of India, as a result of which the Home Treasury Estimates are now prepared on the basis of the amounts appearing in the Railway Construction Programme submitted annually to the Secretary of State. The main features of the new system are (1) that separate grants for Indian and English outlay are now allotted to all railways, the power to re-appropriate between these grants being entirely in the hands of the Railway Board and the Secretary of State, and (2) that indents on England for stores to be supplied in a coming year are to be restricted within a prescribed limit and covered by a specific allotment of funds. More accurate forecasting and better control of expenditure in England.

A strike of goods drivers commenced on May 23rd, 1909, at Arkonam station on the Madras and Southern Mahratta railway, which rapidly developed into a general strike of all drivers on the broad gauge section of the line. The train service was disorganised for a few days, but the administration, by engaging new hands and transferring men from the metre gauge section, succeeded in restoring complete regularity in both passenger and goods services by June 12th. The strike finally collapsed on July 2nd, after a public meeting in Madras had adversely criticised the methods of the strikers. The men formulated no grievances until after the commencement of the strike, claims for better pay and allowances and leave rules being definitely put forward only on May 27th. Strikes.

A dispute occurred between the Port Trust and the Great Indian Peninsula railway and Bombay, Baroda and Central India railway regarding terminal arrangements for working goods traffic at Bombay, but as the outcome of discussion between the interested parties proposals were formulated reconciling the various issues and arranging for arbitration in case of any further minor difficulties arising. Dispute between Port Trust and railways at Bombay.

The Indian Railway Conference Association at their meeting in October 1908 approved of a draft revised general classification of goods, and directed that it should be circulated to all railways for remarks. The details of the tariff were further revised and considered at the conference meeting of September and October 1909, when it was decided that the general classification, and general rules framed in this connection, should be adopted from 1st April 1910. Classification of goods.

A proposal for an amendment of the Indian Tramways Act XI. of 1886, making it applicable to mono-rail concerns and to electric tramways, has been submitted to the Secretary of State for approval.

The branch line terms Resolution No. 514 R. C. of 1896 was revised during the past year, so as to offer Government assistance on a more liberal scale to private companies formed to provide capital for feeder lines of railway.

*Use of local manufactures for railway purposes.*—During the year under review revised rules for the purchase of stores were promulgated by the Government of India, the effect of which is to remove many of the limitations which restricted purchase in the local market. It is yet too early to say what will be the result of these rules, but

RAILWAYS. there is no doubt that they will give a decided impetus to the purchase for State railways of articles of local manufacture.

*Working of motor road trains to serve as feeders to railway lines.*—Motor trains suitable for road traction on the Renard system have met with a certain amount of success in England and on the Continent; and, with a view to giving a practical trial to this system of road traction, the Railway Board arranged to carry out certain experiments—

(*a*) on a mountain road,—for which the Gauhati-Shillong route was selected, and

(*b*) in the plains,—for which the Moradabad-Sambhal Road in Oudh was chosen.

The latter experiment was inconclusive, as it was abandoned after a short time owing to the breakdown of the engine.

The experiments, however, proved that the Renard system is, after certain minor defects have been remedied, a practical one. But it seems unlikely that such mechanical road traction can compete at present with the ordinary carts and tongas of the country, except where labour is scarce and animal traction difficult to provide. The road between Gauhati and Shillong seems to offer fair chances of success for a mechanical road transport service.

*Nomenclature and classification of State Railway Stores.*—The Board have taken up the revision of this publication to bring it up to date and to make it suitable for use by other Government Departments using stores. As the final issue will take some time to accomplish, the Board in the beginning of the year 1909 published a provisional issue to meet urgent demands for this publication.

IRRIGATION.

## IRRIGATION.

(*For further details see Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 76, 119, 121, *and* 135.)

The class of works dealt with by the Public Works Department under the head of Irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination.

The works under the former head take off, in most cases, from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. They have been utilised on the largest scale and with the most successful results in the United Provinces of Agra and Oudh, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in Southern India, where irrigation is largely dependent on storage works. In the Madras Presidency alone there are some 60,000 tanks. These works are for the most part of native origin; but much has been done under the British Government in improving old tanks, and in constructing new works in Madras, the Bombay Deccan, and Ajmere-Merwara.

In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from the ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

Speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old Native works, almost entirely reconstructed by British officers.

The following statement gives a general view of results obtained from working the canals for which full accounts are kept for 1906–7, 1907–8, and 1908–9 :— IRRIGATION.

| — | Capital Outlay (Direct and Indirect) to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works | 32,143,278 | 3,376,852 | 1,140,188 | 2,236,664 | 6·96 | 14,468,107 |
| Minor Works | 4,028,294 | 315,631 | 117,430 | 198,201 | 4·92 | 1,967,420 |
| Total for 1908–9 | 36,171,572 | 3,692,483 | 1,257,618 | 2,434,865 | 6·73 | 16,435,527 |
| Total for 1907–8 | 34,543,031 | 3,565,722 | 1,235,577 | 2,330,145 | 6·74 | 16,076,888 |
| Total for 1906–7 | 33,329,664 | 3,761,726 | 1,192,152 | 2,569,574 | 7·71 | 15,799,558 |

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the receipts of the Irrigation Department consist to a great extent of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces of Agra and Oudh, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation in Sind is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the United Provinces of Agra and Oudh and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owner's rate, which is directly levied, it falls upon the owner of the land.

The immense systems of large artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on some of the larger irrigation canals, it cannot be said that, on the whole, they have met with a large measure of success. In many cases the receipts from the traffic have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

The general results for 1908–9 of working all the irrigation and navigation systems for which full accounts are kept are compared with the results of the five previous years in the following statement :— Bengal.

| Year. | Capital Outlay to end of Year. | Receipts. | Expenditure. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| 1903–4 | 5,229,813 | 163,191 | 95,648 | 67,543 | 1·29 | 809,331 |
| 1904–5 | 5,281,000 | 173,319 | 95,953 | 77,366 | 1·46 | 800,227 |
| 1905–6 | 5,353,895 | 176,597 | 102,382 | 74,215 | 1·38 | 813,405 |
| 1906–7 | 5,432,579 | 188,927 | 124,472 | 64,455 | 1·19 | 904,087 |
| 1907–8 | 5,456,751 | 194,066 | 141,297 | 52,769 | 0·97 | 1,013,290 |
| 1908–9 | 5,596,502 | 207,410 | 127,690 | 79,810 | 1·42 | 1,015,325 |

During the year under review there were in Bengal six major irrigation works, two of which were classed as protective. Of the productive works, three combine

IRRIGATION. irrigation with navigation, and the fourth (Hijili tidal canal) is purely a navigation work. The two protective works, the Dhaka and the Tribeni canals, were sanctioned in 1900–1, and are still in course of construction, the capital expenditure at the end of the year amounting to £34,594 and £256,892 respectively.

The financial results obtained from the working of the major and minor works, excluding the Tribeni canal, during the year under review are shown in the following statement :—

| | Canal. | Capital Outlay to end of Year. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|
| | | £ | £ | | Acres. |
| Major Works | Orissa Canals | 1,780,705 | 4,050 | 0·23 | 284,692 |
| | Midnapur | 566,242 | —*3,019* | — | 63,824 |
| | Sone Canals | 1,782,174 | 74,097 | 4·16 | 653,296 |
| | Hijili Tidal Canal | 174,344 | —*183* | — | — |
| | Dhaka Canal | 34,594 | 359 | 1·04 | 13,513 |
| | Total Major Works | 4,338,059 | 75,304 [a] | 1·73 | 1,015,325 |
| Minor Works | Calcutta and Eastern Canals | 538,502 | 9,209 | 1·71 | — |
| | Orissa Coast Canal | 298,605 | —*5,618* | — | — |
| | Saran Project | 47,654 | — *99* | — | — |
| | Madaripur Bheel Route | 116,791 | 1,014 | 0·87 | — |
| | Total Minor Works | 1,001,552 | 4,506 | 0·45 | — |

Besides the minor works mentioned above, there are four works of this class for which capital accounts are not kept, viz., the Nadia river system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, comprising about 472 miles of channel, is used for navigation purposes only.

United Provinces of Agra and Oudh. In the United Provinces of Agra and Oudh, the capital outlay on canals was considerably smaller than in 1907–8 and was mainly devoted to protective works on the Betwa, Ken, Dassan, and Belan canals. A large number of projects were prepared for embankments which will facilitate irrigation in the southern districts, and attention was given to the restoration of tanks in Bundelkhand. Among productive works the Fatehpur-Sikri distributary extension was nearly completed, and some existing canals were extended or remodelled. The gross revenue fell slightly to £760,000, more than half of which was absorbed by working expenses and interest charges. The irrigated area declined considerably as compared with that of 1907–8, owing to the favourable monsoon and the curtailment of spring-crop sowings by the epidemic of malaria, but was slightly above the average of the previous nine years. The total value of the crops irrigated by canal water during the year was estimated at £9,330,000.

Punjab. The general results for 1908–9 of working all the irrigation systems in operation, for which full accounts are kept, are shown in the following statement, as compared with the results for the previous year :—

| | Canals. | Length of Main and Branch Channels. | Length of Distributaries. | Capital Outlay to End of the Year. | Net Earnings. | Percentage of Net Revenue on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|---|
| | | Miles. | Miles. | £ | £ | | Acres. |
| Major Works | Western Jumna (including Sirsa Branch). | 336 | 1,827 | 1,157,479 | 90,447 | 7·81 | 602,199 |
| | Upper Bari Doab | 370 | 1,580 | 1,382,540 | 161,054 | 11·64 | 1,039,477 |
| | Sirhind (British portion) | 319 | 1,790 | 1,666,066 | 136,920 | 8·22 | 559,527 |
| | Lower Chenab | 427 | 2,295 | 1,887,951 | 426,087 | 22·56 | 1,992,219 |
| | Upper Sutlej | 331 | 393 | 116,631 | 13,404 | 11·49 | 348,094 |
| | Sidhnai | 68 | 131 | 87,603 | 3,404 | 3·88 | 190,227 |
| | Lower Jhelum | 150 | 1,097 | 1,065,744 | 95,552 | 8·96 | 617,696 |
| | Indus Inundation | 660 | 115 | 156,140 | —*4,982* | — | 198,091 |
| Minor Works | Shahpur (Imperial) | 66 | 72 | 14,394 | 2,182 | 15·15 | 34,707 |
| | Ghaggar (Imperial) | 44 | 24 | 22,888 | —*1,616* | — | 12,831 |
| | Total for 1908–9 | 2,771 | 9,324 | 7,557,436 | 922,452 | 12·20 | 5,595,068 |
| | Total for 1907–8 | 2,718 | 9,268 | 7,529,493 | 872,890 | 11·59 | 5,073,276 |

The increase in the net profit for the year was due to the favourable river supply generally and a sufficient monsoon rainfall. The results would have been even better but for a severe epidemic of malaria, which prostrated many of the able-bodied men and retarded cultivation. The decrease in the areas irrigated by the Western Jumna and Sirhind canals was due to the scanty supply of water in the Western Jumna in the early part of the year, and to the favourable rainfall in the districts served by the Sirhind canal, enabling cultivators to dispense largely with canal water. IRRIGATION.

Work was continued on the large projects for the Upper Chenab and Lower Jhelum canals. The operations were, however, considerably hampered by the scarcity of labour consequent on a severe epidemic of malaria in these districts.

The navigation operations on the Western Jumna canal resulted in a profit of £3,046. Those on the Sirhind canal showed a profit of £52.

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works and navigation canals. Burma.

In Upper Burmah there was again a substantial expansion in the area irrigated from the Shwebo and Mandalay canals, the net revenues from which yielded satisfactory returns on the capital expended on their construction. The work of construction on the Mon canals, in the Minbu district, was continued throughout the year, and considerable progress made towards completion. A new survey and project for the Ye-u canal were prepared and approved, and part of the line of the Main canal was demarcated. Minor irrigation works were kept in order, and improved where necessary, and the area irrigated by them was greater than in the previous year.

Irrigation from works constructed by the State is still a novelty to the people of the Central Provinces and Berar, and it is still necessary to offer its benefits on the most liberal terms in order to encourage their acceptance. Though the monsoon of 1908 was far more favourable to cultivators than that of the previous year, the decline in the area irrigated was not great, a fact which shows that cultivators are beginning to realise that irrigation pays even in normal years. A crop rate of Rs. 2 per acre for water on demand has now been established, and is paid freely in most parts of the province. Work on the Ramtek reservoir in Nagpur was pushed on rapidly, and the nine protective works in the Mahanadi Irrigation Division were completed. Almost all the protective irrigation works are now capable of providing irrigation. Good progress was made with minor irrigation works. Central Provinces and Berar.

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery to the small tanks and channels maintained by the Revenue Department. Madras.

The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snow on distant mountain ranges.

The total outlay on irrigation works during the year 1908–9 amounted to £433,667, against £439,800 in the previous year. The area irrigated by all classes of works, including first and second crops, was 7,057,000 acres, exclusive of that under the Kurnool-Cuddapah canal. The total revenue realised was £1,665,733, an increase of £38,400 as compared with 1907–8.

The expenditure under capital account on major productive works was £83,400, incurred chiefly on the Nagavalli River project, the Kistna delta, the Divi pumping project, the Periyar system, the Shatiatope anicut and the Lower Coleroon anicut systems. The area irrigated by works of this class was 3,277,000 acres, against 3,236,000 acres in the previous year. Gross receipts increased by £13,800, due to improvements, and working expenses by £14,800. The profit after paying interest charges gave a return of 6·36 per cent. on the capital outlay; excluding the Kurnool-Cuddapah canal, this return amounted to 9·84 per cent.

Under major protective works, the receipts to capital account exceed the outlay by £2,200, due to large credits realised from the sale proceeds of lands under the Surada reservoir of the Rushikulya system. The area irrigated on the Rushikulya system was 104,000 acres, against 102,000 acres in 1907–8. There was a slight increase both in the revenue and the working expenses.

IRRIGATION. The capital outlay on minor works and navigation amounted to £11,930. The area irrigated and the revenue derived were 348,000 acres and £41,600; the working expenses were £19,267.

Up to the end of the year about 43·27 per cent. of the area to be investigated under the Tank Restoration scheme had been examined, and the expenditure during the year amounted to £30,070.

Of the three large projects which were submitted to the Government of India, it was decided to postpone indefinitely the Tungabhadra project; the other two—the Kistna and Cauvery reservoir projects—were being reinvestigated during the year.

Bombay, including Sind. In the Bombay Presidency, excluding Sind, the water system does not as a rule admit of the construction of large irrigation works. The rivers or streams are mostly small and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or tanks. In Sind the success of the irrigation operations is dependent on the regular rise of the River Indus.

During the year the total expenditure upon irrigation works throughout the Presidency and Sind amounted to £435,000, as compared with £393,330 in 1907–8. Of this total, £153,330 was spent on works, £165,000 on repairs, and nearly £109,000 on establishment. The expenditure was divided between the Presidency and Sind in the proportion of £200,000 to £235,000. There was no famine relief outlay on irrigation works.

The total area irrigated from the Deccan and Gujerat works for which capital and revenue accounts are kept was 142,928 acres, against 130,808 acres in the previous year. The gross assessed revenue rose from £72,504 to £73,268.

In Bombay the season was on the whole a good one, the kharif rainfall being considerably above the normal. The rabi rains were, however, a failure in all divisions, thus increasing the demand for irrigation. As a result, in the northern division the Hathmati and Khari Cut canals irrigated record areas; in the central division there was an increase of 17,666 acres in the area irrigated, and of nearly £10,000 in the gross assessed revenue, compared with the average for the last ten years. In the southern division there was an increase of 7 per cent. in the total area irrigated, and of 1 per cent. in the revenue assessed, as compared with the preceding year, due to increased demand for water in consequence of a want of timely rain. Substantial progress was made with the dam at Chankapur, the Girna Left Bank canal, and the Waghad tank; on the Godaveri canal project, the most important irrigation work now in hand, nearly £70,450 was expended during the year out of a total estimated expenditure of £636,700.

In Sind the existence of cultivation depends upon irrigation, and there is constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results generally obtained from the working of irrigation canals in the province. In the year 1908–9 the rainfall was good, and inundation, on the whole, was unusually satisfactory. The area irrigated by all classes of works was 3,354,738 acres, against 2,785,738 acres in the previous year. The gross assessed revenue amounted to £550,281, the corresponding figure for 1907–8 being £461,685. The exceptionally heavy July rains in Lower Sind, followed by a great flood in the Indus, severely tested the protective embankments and caused considerable damage in certain places.

North-West Frontier Province. At the end of the year under review three major works were in operation in the North-West Frontier Province. A fourth—the Upper Swat River canal—is in course of construction, the capital outlay to the end of the year amounting to £108,304. The results of working of the three canals in operation are shown in the following table:—

| Canal. | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Revenue. | Percentage of Net Revenue on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Lower Swat river - | 283,075 | 39,604 | 9,969 | 29,635 | 10·47 | 159,627 |
| Kabul river - - - | 69,494 | 13,071 | 4,238 | 8,833 | 12·79 | 39,783 |
| Paharpur - - - | 59,732 | 1,334 | 1,054 | 280 | 0·47 | 16,636 |
| Total - - | 412,301 | 54,009 | 15,261 | 38,748 | 9·40 | 216,046 |

Baluchistan. The two chief irrigation works in the province are the Shebo canal and the Khushdil Khan reservoir, the working of which resulted in a loss for the year of £254

and £921 respectively. A third work, the Anambar Flood channel, is in working order, but as no colonists have so far settled near the canal, cultivation has not yet been begun. A new project, the Nar Nullah reservoir, is in progress, and will be completed in 1910. IRRIGATION.

During the year the investigation of the Harangi irrigation project in Coorg was completed. Major works in progress were the improvements to the Abyatimangala dam and channel and the construction of a channel on the left bank of the Balaji river. Expenditure was also incurred upon minor improvements to certain tanks. Coorg.

## BUILDINGS AND ROADS (CIVIL).

BUILDINGS AND ROADS (CIVIL).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The classification of this expenditure for 1908–9 under the various heads is shown in the following table :—

| — | Central Provinces and Berar. | Burma. | Eastern Bengal and Assam. | Bengal. | United Provinces of Agra and Oudh. | Punjab. | North-West Frontier Province | Madras. | Bombay. | India General. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Imperial - - | 4,642 | 37,342 | 12,013 | 86,947 | 26,464 | 28,656 | 137,482 | 10,518 | 69,186 | 265,760 | 679,010 |
| Provincial* - - | 450,754 | 609,791 | 472,065 | 534,892 | 370,366 | 336,249 | — | 416,584 | 524,979 | — | 3,715,680 |
| Total - - | 455,396 | 647,133 | 484,078 | 621,839 | 396,830 | 364,905 | 137,482 | 427,102 | 594,165 | 265,760 | 4,394,690 |

* Includes expenditure by the Civil Department in addition to that by the Public Works Department.

| | |
|---|---|
| Expenditure by Civil Officers from Imperial Funds £ | 21,132 |
| Expenditure in England - - - - £ | 80,105 |
| Grand Total - - £ | 4,495,927 |

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty they have recourse to the professional skill of the Public Works officers.

The following short account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred :—

The principal Imperial works which were in progress during the year were improvements in the Paper Currency office, and the construction of the new Commerce and Industry Secretariat building in Calcutta. Among Provincial works, the extension to the High Court, Calcutta, and most of the buildings of the new Presidency Jail, Alipore, were completed. For the Police Department, the Duff College premises in Calcutta were purchased as headquarters for the Northern Division, and, for the Education Department, land was acquired for the extension of the Presidency and Bethune colleges at Calcutta. A large amount of work, including improvements and extensions to the Presidency General Hospital and the Medical College Hospital, Calcutta, the Howrah General Hospital and the Campbell Hospital, Sealdah, was in hand for the Medical Department. Bengal.

Under Communications, the new high level Tista Valley road was practically completed, and considerable progress was made in opening out new roads and improving existing lines of communication in the Sambalpur district.

The expenditure on buildings on the Imperial list was greater than in the previous year. Sites for a new telegraph office in Rangoon and a new general post office in Mandalay were purchased under the provisions of the Land Acquisition Act. The new Currency buildings in Rangoon were brought into occupation. The Burma.

BUILDINGS AND ROADS (CIVIL).

expenditure on roads and buildings from Provincial funds was much less than in 1907–8. The new General Hospital and the New Chief Court building in Rangoon were approaching completion at the close of the year. Work on the new Government Press building was stopped on account of want of funds after the foundations were laid. The new Police Training School and the new jail at Moulmein were occupied during the year. The amount expended on Communications was less than in the previous year. Existing roads were maintained in a condition of efficiency, but the funds available were not sufficient for the construction of the same length of new roads. The discovery of granite quarries in the Thatôn district has opened out a prospect of obtaining abundant supplies of metal for roads in the stoneless tracts of the Delta, where formerly burnt clay was the only material available for the surface. Progress was made in the replacement of existing old wooden bridges on roads by permanent structures of reinforced concrete or steel girders.

United Provinces of Agra and Oudh.

In the United Provinces of Agra and Oudh nearly £920,000 was spent in 1908–9 by the Public Works Department on buildings and roads, of which considerably more than one-third was absorbed by famine relief. The most important buildings undertaken were the Agricultural College at Cawnpore and the Civil Hospital at Allahabad. The building of several industrial schools designed to promote weaving, carpentry and other useful trades was commenced and other important new schools were in course of construction. A site for the medical college and hospital at Lucknow was prepared. The expenditure on the upkeep of roads was very large, and 215 miles of new metalled road were constructed.

Punjab.

Imperial works in progress during the year included the preparation of a site for the proposed Government of India Civil Secretariat Office at Simla, the construction of new post offices at Dharmsala, Rawalpindi, Sangla, Shâhipur, and Palampur, and of a Monotype Press building at Simla.

Under Provincial civil works, the following buildings, among others, were completed or in progress, viz., additions and improvements to the District Court at Rohtak, a new Treasury strong room at Multan, a District Kutchery at Dharmsala, Tahsil buildings at Kangra, and a court and residence for the Assistant Commissioner at Fazilka. The reconstruction of Bishop Cotton's School at Simla, which was destroyed by fire in 1905, was also completed.

The expenditure on roads increased, amounting during the year to £95,355. Many new roads were undertaken and large repairs to existing roads were carried out.

Central Provinces and Berar.

The year was a busy one in the Public Works Department of the Central Provinces and Berar. More than half the outlay was on Communications, and the dominant feature of the year's operations was the provision of employment on a large scale especially in the Nerbudda, Jubbulpore, and Chattisgarh divisions by the expansion of road works on the ordinary contract system. During the scarcity period a sum of £123,500 was spent on these works. A large sum was also spent on buildings, a considerable amount of work being done on behalf of the Civil Judiciary and Police Departments, and on school buildings and hostels, while a number of bonded warehouses were built for the Excise Department. Work on the new Secretariat and other Government Offices and residences was pushed on with vigour. A considerable sum was spent on arboriculture, and many additions and alterations were made to the buildings of the experimental farms.

Eastern Bengal and Assam.

Many important projects were dealt with during the year by the Public Works Department. Considerable progress was made with the construction of the new Government Houses at Dacca and Chittagong. For the new Civil Station at Dacca additional land was acquired, the grounds were cleared and laid out, new roads were made and drained, eleven houses were finished, and thirteen were under construction. In various parts of the Province many new residences, offices, circuit-houses, dak and inspection bungalows, barrack and other buildings were completed or under construction.

Under the head of communications, roads were constructed, widened, and metalled, and several bridges built. The total expenditure on Public Works increased by more than £67,000.

Madras.

There were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local civil works.

BUILDINGS AND ROADS (CIVIL).

The number of buildings completed or in progress was 279. Taluk offices at Bellary, Coimbatore, Udipi and Nannilam, and a Central Record Office at Madras, were completed. A bridge over the Muriat river in Malabar was finished, and good progress was made with the Napier bridge over the Cooum, and the bridges over the Kolab and Malattar rivers.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department. Existing roads were improved or maintained in good order, an outlay of over £23,000 being incurred on improvements to the Tellicherry-Coorg road.

Bombay.

The total expenditure incurred by the Buildings and Roads Branch during the year amounted to £573,300. Under Imperial works, the principal scheme undertaken was that for the location of the Coast Guard Fleet at Sivri. Good progress was also made with the construction of the new General Post Office at Bombay, and of the Consulate Building at Bundar Abbas. Under Provincial works, £56,670 was spent on medical buildings, £50,000 on educational colleges and schools, £41,700 on land revenue buildings, £40,000 on police buildings, and £30,000 on law buildings and jails. A total sum of £153 was spent on communications. During the year no famine relief works were carried on by the Department.

Coorg.

The expenditure on Public works amounted to £18,863, including the cost of maintenance of existing communications. The chief original work on hand was the construction of an iron bridge over the Harangi river at Kudige; this was nearly completed during the year and is now open to traffic. The Wynaad road was completed, and improvements costing £2,000 were carried out in connection with the Mercara schools.

North-West Frontier Province.

The principal buildings completed and in progress during the year were new Militia posts at Wuchadarra and Jandola, offices for the Political Agent at Parachinar, and for the Superintendent of the Archæological Survey at Peshawar, a new Court for the Deputy Commissioner at Peshawar, Treasury buildings at Peshawar and Kohat, police stations at Mirian, Abbottabad, and Paharpur, and a civil hospital at Mochi Dhara. Under Communications a roadway over the railway bridge at Khushalgarh was constructed, and in consequence the boat bridge hitherto maintained at that place has been removed to Jehangira. Various additions and improvements to existing roads were carried out, and the construction of bunds for the protection of Dera Ismail Khan city and cantonment was taken in hand.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

# CHAPTER XII.

## POST OFFICE AND TELEGRAPHS.

*(For further details, see Statistical Abstract for British India, Tables 90 to 96 and 98 to 100.)*

### POST OFFICE.

POST OFFICE.

*Financial Results.*—The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, have been as follows:—

| YEAR. | Receipts. | Expenditure. | Net Revenue (+) or Deficit (—). |
|---|---|---|---|
| | £ | £ | £ |
| 1906–7 - - - | 1,751,146 | 1,602,933 | +148,213 |
| 1907–8 - - - | 1,823,999 | 1,772,720 | +51,279 |
| 1908–9 - - - | 1,825,620 | 1,896,753 | −71,133 |

*Extent of Postal Operations.*—The extent of the operations of the Post Office, and their development during the last three years, are shown in the tables in the margin.

| YEAR. | Post Offices. | Letter Boxes. | Village Postmen. | Length* of Postal Lines. |
|---|---|---|---|---|
| | No. | No. | No. | Miles. |
| 1906–7 - - - | 17,180 | 39,523 | 8,383 | 153,606 |
| 1907–8 - - - | 17,777 | 41,648 | 8,335 | 154,338 |
| 1908–9 - - - | 18,399 | 43,577 | 8,299 | 156,633 |
| Increase or decrease in 1908–9 as compared with 1907–8 - | +622 | +1,929 | −36 | +2,295 |

* Including the Bombay-Aden line.

| YEAR. | Letters and Postcards. | Newspapers. | Book and Pattern Packets. | Parcels. | TOTAL. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| 1906–7 - - | 683,707,568 | 44,045,566 | 46,521,568 | 5,281,884 | 779,556,586 |
| 1907–8 - - | 723,519,579 | 48,294,479 | 48,941,096 | 5,884,169 | 826,639,323 |
| 1908–9 - - | 767,922,728 | 50,107,799 | 51,084,486 | 6,140,819 | 875,255,832 |
| Increase in 1908–9 over 1907–8 - | 44,403,149 | 1,813,320 | 2,143,390 | 256,650 | 48,616,509 |

The general correspondence returns, of which a summary is given in the margin, show an increase exceeding 48½ millions of articles (excluding money orders) for 1908–9, as compared with the figures for 1907–8. Of the additional articles 21 millions were postcards.

*Alterations in Postal Arrangements during* 1908–9. —(1) *Inland post.* — The maximum weight up to which a registered newspaper can be carried for ¼ anna, was raised from 6 tolas to 8 tolas; and for ½ anna, from 20 tolas to 40 tolas.

The rules relating to the use of postcards and the procedure of the value-payable post were simplified.

(2) *Foreign Post.*—The foreign money order system was extended, among other places, to the Argentine Republic, Costa Rica, Curaçoa, German New Guinea, and North-Western Rhodesia.

A system was introduced by which remitters of money orders between India and the United Kingdom, as well as certain foreign countries and colonies, can obtain advices of the payment of their money orders from the post offices of payment, by the payment of a fee of two annas in addition to the usual commission.

*Amount of Postal Matter dealt with.*—The total number of articles received for delivery, including money orders, was nearly 899 millions, of which, it is estimated, 99·69 per cent. were actually delivered or paid, as compared with 95·1 per cent. in the preceding year.

The work of the dead-letter offices increased somewhat during the year, though the increase was less than that recorded for 1907–8. In 1908–9 the receipts of postal articles (excluding money orders) at the dead-letter offices were 9,199,633; of this number 6,604,869 articles were either delivered to addressees or returned to senders, and 2,594,764 could not be disposed of. This last figure is only 0·29 per cent. of the total number of articles given out for delivery, and takes into account a large number of articles which, for various reasons, such as the absence of an address, could not possibly be delivered.

The following table gives an estimate of the amount of postal matter exchanged with the United Kingdom and with other countries in 1907–8 and 1908–9 :— POST OFFICE.

| Correspondence exchanged. | With United Kingdom. | | | With other Countries. | | | Total. | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1907–8. | 1908–9. | Increase. | 1907–8. | 1908–9. | Increase. | 1907–8. | 1908–9. | Increase. |
| Letters and Postcards | 16,792,000 | 20,333,000 | 3,541,000 | 8,682,000 | 9,000,000 | 318,000 | 25,474,000 | 29,333,000 | 3,859,000 |
| Newspapers, Book packets, and Samples. | 11,130,000 | 13,000,000 | 1,870,000 | 6,586,000 | 7,000,000 | 414,000 | 17,716,000 | 20,000,000 | 2,284,000 |
| Total - - | 27,922,000 | 33,333,000 | 5,411,000 | 15,268,000 | 16,000,000 | 732,000 | 43,190,000 | 49,333,000 | 6,143,000 |

*Insurance, Value Payable Post, Money Orders, Savings Bank, &c.*—Information regarding these branches of the work of the Post Office can be most conveniently given in a tabular form :—

| | 1907–8. | 1908–9. | Increase or Decrease. |
|---|---|---|---|
| INSURANCE OF LETTERS AND PARCELS :— | | | |
| Number of articles insured - - - - | 856,386 | 956,189 | 99,803 |
| Number of claims admitted - - - - | 39 | 53 | 14 |
| Net payment in respect of claims - - - | £547 | £529 | —£18 |
| Receipts from Insurance Fees - - - - | £20,562 | £20,670 | £108 |
| VALUE PAYABLE POST :— | | | |
| Number of articles sent - - - - | 6,165,600 | 6,393,575 | 226,975 |
| Value specified for recovery - - - - | £5,000,000 | £5,166,000 | £166,000 |
| MONEY ORDERS :— | | | |
| Value of Ordinary Inland Orders issued in India - | £23,510,012 | £24,270,266 | £760,254 |
| „ Telegraphic Money Orders - - - | £1,803,879 | £1,858,141 | £54,262 |
| Average value of an Inland Money Order - - | Rs. 16 a. 15 p. 11 | Rs. 16 a. 15 p. 1 | —10 pies. |
| „ „ „ a Telegraphic Money Order - | Rs. 89 a. 9 p. 2 | Rs. 93 a. 8 p. 8 | Rs. 3 a. 15 p. 6 |
| Value of Foreign Orders issued in India - - - | £517,201 | £587,468 | £70,267 |
| „ „ „ paid „ - - | £1,637,217 | £1,465,932 | —£171,285 |
| SAVINGS BANK :— | | | |
| Number of Post Offices transacting Savings Bank business at end of year. | 8,328 | 8,501 | 173 |
| Number of accounts in Post Office Savings Banks - | 1,262,763 | 1,318,632 | 55,869 |
| Amount of Deposits at beginning of year - - | £9,844,652 | £10,120,956 | £276,304 |
| „ New Deposits during year - - | £3,677,695 | £3,487,732 | —£189,963 |
| „ Interest credited „ - - | £287,868 | £289,399 | £1,531 |
| „ Withdrawals „ - - - | £3,689,260 | £3,741,985 | £271,289 |
| Amount of Deposits at end of year - - - | £10,120,955 | £10,156,101 | £35,146 |
| Securities held on behalf of Depositors at end of year - | £343,450 | £383,950 | £40,500 |
| Number of Accounts classified according to class of Depositor— | | | |
| I. Professional - - - - - | 409,224 | 425,376 | 16,152 |
| II. Domestic - - - - - | 214,431 | 222,925 | 8,494 |
| III. Commercial - - - - - | 50,394 | 53,785 | 3,391 |
| IV. Agricultural - - - - | 27,386 | 29,262 | 1,876 |
| V. Industrial - - - - - | 45,956 | 49,110 | 3,154 |
| VI. Indefinite (including persons whose incomes are derived from others). | 515,372 | 538,174 | 22,802 |
| LIFE INSURANCE AND ANNUITIES :— | | | |
| Number of policies in existence at end of year - | 15,458 | 17,621 | 2,807 |
| Sum insured - - - - - - - | £1,447,409 | £1,625,851 | £178,442 |

*Offences.*—During the year under review there were 35 cases in which the mails were plundered by highway robbers, of which 27 were in British territory and 8 in Native States. The figures for the preceding year were 29 and 3 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 553. The defalcations and losses amounted to £4,346, as compared with £2,457 in 1907–8. A sum of £1,971 was recovered from

POST OFFICE.

the offenders or their sureties; £1,303 was charged against the Post Office Guarantee Fund, and the remainder was written off as irrecoverable or remained unadjusted at the close of the year.

*Staff.*—The total staff of the department numbered 91,187 on 31st March 1909, as compared with 88,400 on the corresponding date in 1908.

*Sale of Quinine.*—Quinine is sold at Post Offices throughout India. The supplies issued to Post Offices in 1908–9 slightly exceeded those issued in 1907–8. The sales in Upper India in 1908–9 were considerably greater than those of the previous year owing chiefly to a serious outbreak of malaria in the period under review. The sales in the Bengal Circle, however, exhibited a decline, which is to be traced to the establishment of new agencies for the sale of the drug and to its free distribution by charitable institutions.

TELEGRAPHS.

## TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 69,708 miles of line, 277,731 miles of wire, and 357 miles of cable.

Events of importance during the year were the adoption by the Indo-European Telegraph Department from 1st April 1908 of the Indian inland telegraph rules and rates for messages exchanged between India and their offices in the south of Baluchistan and on the Mekran coast in order to assimilate their rates to those in force in the offices of the Indian Telegraph Department in the north of Baluchistan, the opening of a new cable for international telegraph traffic between Batavia and Cocos Island on 13th April 1908, the application from the same date of reduced rates for telegrams to places in East and South Africa from India and Burma viâ Bombay and Aden, and the introduction on the 1st January 1909 of a revised tariff for inland messages in India whereby the classifications of Urgent, Ordinary, and Deferred were abolished and new classifications of Express and Ordinary introduced, the charges being at the same time considerably modified.

As a result of a recommendation of the Telegraph Committee appointed by the Government of India in 1906, a scheme for the reorganisation of the Signalling Establishment was sanctioned with effect from 1st July 1908, whereby the pay and prospects of the staff were materially improved.

Mr. J. Newlands, C.I.E., the telegraph traffic expert deputed to India to advise and assist in the reforms contemplated by the Committee, completed his duties in the year under review. In consequence of the improvements initiated under his supervision, the department finds itself in possession of a traffic organisation which will enable it to deal confidently with any future expansion of traffic that may develop.

Disaffection amongst the Signalling Staff continued to express itself in the early part of the year, and eventually culminated in a partial strike. The dislocation to traffic was necessarily considerable, but the prompt and efficient co-operation of the postal department enabled matters to be quickly remedied.

Field telegraph operations were carried out in conjunction with a military expeditionary force sent into the Mohmand territory early in the year and necessitated the erection of 44 miles of new lines and 17 miles of extra wire on existing supports, and the opening and closing of 17 field offices.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

| Year. | Capital Expenditure. | Miles of Line. | Miles of Wire. | Miles of Cable. | Offices open to the Public. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Departmental, Ordinary and Postal combined. | Railway and Canal. | Total. |
| | £ | | | | | | |
| Up to beginning of 1904–5 - | *5,549,211 | 59,692 | 212,038 | 224 | 2,127 | 3,469 | 5,596 |
| During 1904–5 - - - | 274,820 | 1,992 | 15,398 | 21 | 62 | 328 | 390 |
| „ 1905-6 - - - | 380,474 | 2,699 | 15,776 | 34 | 120 | 122 | 242 |
| „ 1906–7 - - - | 379,798 | 2,814 | 15,648 | 42 | 129 | 142 | 271 |
| „ 1907–8 - - - | 272,745 | 1,371 | 10,529 | 50 | 106 | 179 | 285 |
| „ 1908–9 - - - | 239,671 | 1,140 | 8,342 | —14 | 114 | 75 | 189 |
| To end of 1908–9 - - - | 7,096,719 | 69,708 | 277,731 | 357 | 2,658 | 4,315 | 6,973 |

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

TELEGRAPHS.

A general view of the operations of the Department in 1908–9, in comparison with those of the four previous years, will be gained from the following statement:—

| Year. | Number of Messages during Year. | Gross Receipts, including State but excluding *pro formâ* Revenue. | Charges. | Net Receipts. | Percentage of Net to Gross Receipts. | Return on Capital. |
|---|---|---|---|---|---|---|
| | | £ | £ | £ | | |
| 1904–5 | 9,098,345 | 765,274 | 546,914 | 218,360 | 28·53 | 3·75 |
| 1905–6 | 10,461,117 | 805,748 | 599,052 | 206,696 | 25·65 | 3·33 |
| 1906–7 | 11,385,166 | 827,744 | 644,205 | 183,539 | 22·17 | 2·79 |
| 1907–8 | 12,749,923 | 875,778 | 752,411 | 123,367 | 14·08 | 1·80 |
| 1908–9 | 13,006,778 | 874,795 | 783,022 | 91,773 | 10·49 | 0·70 |

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines, or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1908–9 the receipts of the Department were not sufficient to cover both the working expenses and the amount expended on capital account, and there was a charge on Government revenues of £147,898.

The gross receipts of 1908–9 show a reduction, as compared with those of 1907–8, of £983, attributed to the diversion of far east traffic to the newly-opened Batavia-Cocos cable, to the reduction of rates between India and Africa, and to the fall in value of Indian inland messages under the revised tariff introduced on 1st January 1909. Working expenses, on the other hand, increased by £30,611, due almost entirely to the improvement in the pay of the Signalling Establishment consequent on the reorganisation of that branch. As a result, the net receipts were £31,594 less in the year under review, while the percentage of net revenue on capital outlay fell to 0·70.

The number of paid telegrams increased during the year by 2·01 per cent., but their value decreased by 2·92 per cent. The decrease in value is due to the falling off of foreign traffic in consequence of the opening of alternative routes.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

| Class of Telegram. | 1907–8. | | 1908–9. | |
|---|---|---|---|---|
| | No. | Value. | No. | Value. |
| | | £ | | £ |
| Inland State | 968,418 | 110,973 | 976,208 | 106,720 |
| Foreign State | 16,361 | 4,005 | 15,820 | 3,433 |
| Total State | 984,779 | 114,978 | 992,028 | 110,153 |
| Inland Private | 10,537,969 | 404,766 | 10,861,923 | 406,608 |
| Foreign Private | 1,227,175 | 149,143 | 1,152,827 | 132,560 |
| Total Private | 11,765,144 | 553,909 | 12,014,750 | 539,168 |
| Total State and Private | 12,749,923 | 668,887 | 13,006,778 | 649,321 |

The subscriptions to the Telegraph Department for telephone and similar services rendered during the calendar year 1908 amounted to £27,130, being an increase of £5,416 over the figures of the previous year. The average annual subscriptions for the past five years amounted to £19,154.

Interruptions during the year on the lines to foreign countries were more numerous than in 1907–8, notably on the Teheran route to Europe and on the Moulmein-Bangkok and Raheng lines to Siam.

Wireless telegraphic communication between Diamond Island and Port Blair, Diamond Island and Bassein, and Calcutta and the Pilot Vessels at the Sandheads was maintained throughout the year. New radio-telegraph stations were also opened at Mergui and Victoria Point, and communication between these places is satisfactory except at times of severe atmospheric disturbance. There are now nine radio-telegraph stations installed in India.

## Indo-European Telegraph Department.

Indo-European Telegraph Department.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department, and consists of 1,945 knots of cable, 2,575 miles of line, and 6,547 miles of wire. This also includes a cable from Jask to Muscat, 218 knots in length.

The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

| Year. | Total Capital Outlay. | Gross Receipts.* | Expenditure. | Net Receipts. | Percentage of | |
|---|---|---|---|---|---|---|
| | | | | | Net Receipts to Capital. | Expenditure to Gross Receipts. |
| | £ | £ | £ | £ | | |
| 1904–5 - - - - | 931,438 | 112,907 | 71,845 | 41,062 | 4·40 | 63·63 |
| 1905–6 - - - - | 957,491 | 111,082 | 59,457 | 51,625 | 5·39 | 53·52 |
| 1906–7 - - - - | 988,204 | 102,674 | 72,104 | 30,570 | 3·09 | 70·22 |
| 1907–8 - - - - | 997,094 | 109,002 | 75,690 | 33,312 | 3·34 | 69·44 |
| 1908–9 - - - - | 998,142 | 103,689 | 75,287 | 28,402 | 2·84 | 72·60 |

* This represents the revenue of the Department after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The gross earnings of the year decreased by £5,313, largely due to a falling-off in Indian trade with other countries during the year, and a consequent reduction in telegraphic traffic. Working expenses also decreased by £403, due to a saving in cable maintenance, and notwithstanding an increase in general charges on account of the rental of the Central Persia line and of the Robat-Nok Kondi extension of that line. The capital expenditure of £1,048 incurred during the year was used mainly on the re-construction work on the line from Teheran to Ardistan.

The number of messages transmitted during the year amounted to 229,908, being a decrease of 15·21 per cent. as compared with 1907–8, due, as explained above, to a falling-off in traffic.

A system of direct telegraph working between London and Karachi viâ the Central Persia line was established on the 20th January 1909, by which much time and labour are saved in the transmission of messages.

Under the Joint Purse Agreement, the share of the Department was £5,485 less than last year, being £107,051, as against £112,536 in 1907–8. This was principally due to the decrease of traffic mentioned above. The amount paid into the Joint Purse for the year under review was £53,865.

The Departmental receipts from the Australasian Message Fund for 1908–9 amounted to £5,936, being £48 less than in 1907–8, and a decrease of £299 on the receipts for 1899, on which the original Australasian Message Fund was based.

Interruptions between Karachi and Teheran were not serious, but between Teheran and London they aggregated 34 days 6½ hours, due mainly to the disturbances in Persia between Teheran and the Russian frontier. Acts of wilful damage again increased, numbering 1,212, or 117 more than in the preceding year. These were largely due to the state of unrest and disorder which prevailed throughout the country generally.

# CHAPTER XIII.

## SCIENTIFIC DEPARTMENTS.


General.
Board of Scientific Advice.
Survey of India.
Other Surveys.
Meteorological Department.
Agricultural Departments.
Civil Veterinary Department.
Forest Research Institute.
Archæological Department.
Medical Research Institutes.




### General.



Owing to the progress made in recent years in the application of science to various branches of the work of Government, it is proposed in this chapter to deal not only with surveys, but also with other scientific departments that have been established by the Imperial or Provincial Governments for the conservation and development of the natural resources of the country. In 1908–9 expenditure on Scientific Departments amounted to about £660,000, against which must be set about £78,000 for receipts. More than half the expenditure was for agricultural and veterinary work and the bulk of the remainder for survey work.

### The Board of Scientific Advice.



This Board includes the heads of the Meteorological, Geological, Botanical, Forest, Survey, Agricultural, and Civil Veterinary Departments, and other scientific authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The programmes of investigation of the various departments are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society, who from time to time furnish valuable suggestions and advice.

### Survey of India.



The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical surveys, forest and cadastral surveys, special surveys and explorations, and map production. The latest available information on most of these matters relates to the year ending 30th September 1908. The total cost of the Department for that year was about £221,000. The Department has been materially expanded during the last few years, and the work has improved owing to closer supervision and the better instruction of field surveyors and draughtsmen.

In 1904 attention was drawn to the defective state of the topographical survey maps, and a Committee was appointed to report on the subject. To overtake the arrears of revisional survey and to secure that the map of India should be brought up to date and revised at proper intervals, they recommended a considerable increase of establishment and an increased expenditure of £210,000 a year for the next 25 years. They also made recommendations for altering the size and improving the quality of the maps. After further inquiry the Government of India decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile, and the ½ inch scale employed for waste and barren tracts. This decision will somewhat reduce the standard of establishments and expenditure proposed by the Committee.

During 1907–8 field operations were carried on by 22 survey parties and three detachments. Of the parties, 13 were employed on topographical surveys; one on principal triangulation; one on traverse and cadastral surveys; one on traverse surveys for cadastral purposes; two parties on traverse and topographical surveys; four on purely scientific operations; and the three detachments on town and cantonment surveys.

SCIENTIFIC DEPARTMENTS.

Trigonometrical survey.

The triangulation party, working in three detachments, continued the series of principal triangulation in Baluchistan and Burma, and 27 triangles, covering 4,175 square miles, were completed. Of these, 13 triangles, covering 2,375 square miles, were in Western Baluchistan, and 14 triangles, covering 1,800 square miles, in Burma.

Topographical and forest surveys.

The total area of detail topographical and forest surveys on all scales during the year was 35,968 square miles. Of the total area 7,856 square miles were covered in Burma, where a five years' programme of topographical survey was arranged in 1905, embracing a large portion of the more important tracts of country. All reserved forests are now surveyed, principally on a scale of 2 inches to the mile, in the course of the general programme. During the year forest surveys were carried out in five provinces.

Cadastral and traverse surveys.

One cadastral party was engaged in Burma, and three parties were employed on the traversing of areas in Bengal and Eastern Bengal and Assam, which are now cadastrally surveyed by the provincial Settlement Department. In future revenue operations in Burma will devolve on the Land Records Department. The total area of cadastral surveys was 970 square miles and of the area traversed for this purpose 6,631 square miles.

Special operations.

The gravimetric survey was continued. Observations were taken for latitude to determine the deflection of the plumb-line, near Deesa, with the object of investigating variations in the density of the earth's crust that have been discovered in this region.

*Tidal and levelling operations.*

The recording of tidal curves by self-registering tide gauges, their reduction, and the publication of tide tables were continued during the year at the eight permanent stations. Three detachments were engaged on levelling operations.

*Magnetic survey.*

The preliminary magnetic survey was completed with the exception of the coast of Burma, the wild country north of Burma, and the Himálayan Karakoram regions. The detailed magnetic survey is about to be commenced.

Head-quarters offices.

The re-organisation of all the offices connected with mapping, map printing, and issue was continued under Major Hedley, R.E.

It is hoped to publish in 1910 maps for the whole of India on the $\frac{1}{\text{million}}$ scale.

The general maps are still far from completion, but satisfactory progress is being made. The number of maps issued during the year was 130,960.

## OTHER SURVEYS.

Marine.

Two new marine survey vessels, the "Investigator" and the "Palinurus," thoroughly equipped for modern requirements, have been placed on the service. Surveys were made of the approaches to the Government dockyard at Bombay, of Bombay Harbour, of the west coast of India, and of the Burma coast.

Geological.

The first object of the Geological Survey Department is the preparation of a geological map of India, and this work was continued during 1908 by surveys in Baluchistan, Burma, Rajputana, Central India, Kashmir, and the Central Provinces. Various economic investigations, which form an increasingly important part of the Department's work, were conducted. These included studies of alum manufacture in the Punjab, of china-clay, chromite, iron-ore, and copper in Bengal, and of petroleum and tin in Burma. Mr. Fermor completed his valuable monograph on the manganese-ore deposits of India, which he had been investigating for four years.

Owing to the extraordinary increase in the activity of prospectors for minerals, especially manganese ore and coal, demands for information were again numerous.

Botanical.

Plant collections were made by or on behalf of the Botanical Survey in different parts of India. The study of economic problems forms no part of the work of the Botanical Survey as such, but much work of this kind was done by the officers of the Survey who serve as Economic Botanists to the local Governments. Researches were made regarding cotton, sunn hemp, flax, sugar-cane, jute, wheat, &c.

Zoological.

The work of the Zoological Survey in 1908 included surveys of the fauna of stagnant water, studies in marine zoology, Indian rats, &c.

## METEOROLOGICAL DEPARTMENT.

Meteorological Department.

The work of the Meteorological Department falls into two parts, the directly useful and the purely scientific, which aims at ascertaining facts which shall be of practical utility in future. The scientific work includes the experimental and theoretical

Scientific Departments.

examination of the physical processes, on the earth or in the sun, which determine the weather. The practical work consists chiefly in the collection and distribution of current weather information. The area under observation by the Department embraces not only India but the whole of the Arabian Sea and Indian Ocean, the Persian Gulf, Persia, Arabia, Chinese Turkestan, and Tibet. There were 280 observation stations (of which 50 were non-departmental) at the close of 1908–9, ranging from the well-equipped observatories at Kodaikanal, Madras, Bombay, Alipore (Calcutta), Allahabad, and Lahore, to small stations at which observations of temperature, rainfall, and snowfall only are recorded. The Department inspects their working and collects the results; it also studies the meteorology of the Indian Ocean by means of the logs of vessels arriving at Indian and other ports, and conducts seismographic observations. Experimental work for determining the conditions of the upper air by means of kites and small free balloons was continued during the year. Special investigations comprised wind observations, solar and terrestrial radiation observations, sunshine observations, seismological observations, barometric observations, and observations of atmospheric electricity. Great attention is now paid to the correct registration of rainfall. The actual rainfall of the last ten years compared with the normal will be found in the *Statistical Abstract of British India* (Table 118). Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 1,199 such warnings were issued during 1908–9. The publication of the meteorological atlas of the Indian seas has placed a large amount of valuable information at the convenient disposal of ship captains.

## Agricultural Departments.

Agricultural Departments. General.

The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised. It is based on the generally accepted principle that effective improvement in Indian agriculture depends largely, or mainly, on the application of European science to Indian conditions. Although India is a land of skilled agriculturists, the outturn per acre of many crops is comparatively small, and the quality of some kinds of produce is inferior. Much can be done to improve and develop Indian agriculture by energetic research and by the application of more scientific methods and greater scientific knowledge than were formerly available. The necessary scientific knowledge must inevitably be obtained in the first instance by the recruitment of trained specialists from the United Kingdom; but it is an essential part of the scheme that facilities for the best agricultural training shall be made available in India, in order that the country may become self-supporting, so far as possible, in the scientific development of agricultural methods on lines suited to local conditions.

India now possesses an Imperial Department of Agriculture, under an Inspector-General and an Assistant Inspector-General, while there are nine provincial Departments of Agriculture under Directors and Deputy-Directors. To the Imperial Department is attached the Pusa Central Research Institute and Agricultural College, which has been provided with a Director and European experts in agriculture, entomology, botany, mycology, chemistry, and bacteriology, together with a cotton specialist. Further, there have been established in seven provinces an agricultural college and a research station, equipped with laboratories and class-rooms, and connected with a farm of suitable size. The principals of the colleges have a staff of chemists and botanists. In Eastern Bengal and Assam there is a special fibre expert. In the various provinces there is a number of agricultural stations and of botanical, horticultural, and agri-horticultural gardens. The provincial departments distribute selected seeds and manures, and furnish advice as to implements and crops.

There is a Board of Agriculture of 38 members which suggests and reviews programmes of work and discusses current questions. Agricultural memoirs and an agricultural journal are published.

Pusa Research Institute.

The Phipps Laboratory at Pusa is now fully equipped, and practically the whole of the Institute estate is under grass or arable cultivation. Pusa will be chiefly a higher teaching institution for post-graduate studies in one branch of research. Last year there were 19 students, drawn from provincial agricultural colleges or other colleges. Experiments were undertaken in connection with manures and permanent pasture, while the crops under trial included wheat, rice and other food grains,

SCIENTIFIC DEPARTMENTS.

pulses, oil-seeds, cotton, jute, sugar-cane, flax, and tobacco. Perhaps the most important line of work is the breeding and rearing of farm live stock. Poultry breeding is undertaken. A monograph on Indian wheats has been published. Fruit cultivation has been successfully established. An inquiry is proceeding on the prevention of injury by weevils to wheat and other grains. A general study of the oil-seeds of India is to be undertaken. Information as to Indian fungi has been made accessible, and the plant diseases (*e.g.*, in sugar-cane and palms) due to particular parasites have been studied. Heavy losses from these diseases have already been prevented by the mycologists. A book on Indian plant diseases is nearly completed. The entomologists have done good work in studying the habits of injurious insects and in conducting experiments in *eri* silk, while practical instruction has been given in lac cultivation. The text-book on Indian insect pests increases in popularity. The habits of biting flies, fruit flies, &c., are under investigation.

A brief sketch will be given of the work carried out during 1908–9 in connection with agricultural development.

Bengal.

The organisation of the department is still incomplete. The provincial agricultural college at Sabaur is expected to be in working order before the end of 1910. Progress has been made in the establishment of agricultural stations, which are designed to be representative of the six agricultural tracts of the province. There are six Government stations and two private ones. Stations are to be started at Kharagpur (Midnapur) and Ranchi when funds are available. There is a demonstration farm at Kalimpong. The Bengal Provincial Agricultural Association meets quarterly to discuss agricultural problems. The 23 agricultural shows and fairs held during the year received grants-in-aid from Government.

Samples of manures and soils were analysed, and special research in connection with sugar-cane was begun. Experiments were made in connection with rice, cotton, jute and flax. The Government decided to grant Rs. 32,500 a year for five years in aid of the indigo research work at Sirsiah. Investigations were made regarding insect pests that attack jute, cotton, paddy, and other crops. Experiments with agricultural implements were continued.

The Director, aided by a committee of four silk experts, is inquiring into the improvement of the Bengal silk industry. A central nursery with mulberry farm and rearing houses at Berhampore and 14 small subsidiary nurseries have been established for the supply of pure seed, *i.e.*, live cocoons, to rearers of silk-worms. A sericultural superintendent has been appointed. Experiments were continued at the *tasar* silk-rearing station at Chaibassa.

Seven students of the agricultural classes at Sibpur obtained diplomas in November 1908. Two students who had been sent to America for further training returned.

The Department prepared leaflets and notes on maize, juar, fodder crops, cattle diseases, and other subjects, and vernacular translations of some of these were widely circulated. A quarterly journal of agriculture is published. Large quantities of seeds, manures, and agricultural implements were issued from the Government seed store.

United Provinces.

During the year existing organisations were developed, but funds did not suffice for the initiation of new schemes. There was a remarkable growth of public interest in the improvement of agriculture and stock-breeding, and in labour-saving appliances, especially water-lifts, improved ploughs and sugar machinery. This general increase of interest has tended to make the subordinate agricultural service more popular, and has led to many requests for advice. The seed depôts, which issued cotton, ground-nut, and other seeds to cultivators on credit, were much appreciated. These depôts are being managed with a view to their transfer to co-operative societies. A trained staff of 50 borers has been placed under the control of district officers to help the people in well-sinking. A post of agricultural engineer has been created temporarily. Demonstrations were continued of the Hadi process of sugar manufacture, and the number of factories using it has increased. Investigations of cotton, wheat, maize, juar, ground-nut, rice, maize, hemp, manures, &c., were in progress at the four agricultural stations. Pamphlets were issued on sugar-cane, ground-nuts, American cotton, and the prevention of smut. The Urdu agricultural journal increased its circulation. There were several shows and fairs, besides an exhibition at Agra. The Cawnpore Agricultural College was brought to its full strength, and 33 students obtained diplomas.

Punjab.

The Agricultural Department is already making its influence felt, especially in the canal colonies, in which the only existing agricultural station and seed farm are

SCIENTIFIC DEPARTMENTS.

situated. The Department has been chiefly occupied in experiments with new and important varieties of crops, the introduction of agricultural machinery, and the plans for the Lyallpur Agricultural College, which, however, could not be opened till September 1909. No fewer than 574 applications for admission were received, although room was available for 16 students only. Agricultural machinery is, owing to scarcity of labour, growing in popularity, and a commercial firm have deemed it worth while to relieve the Department of the work of distributing mechanical reapers and some other implements. Enquiries into the milling and baking qualities of Punjab wheats have shown that the red wheats, which are most suited for cultivation, are also superior for milling and baking to the soft white wheats which have hitherto been most in demand for export. This information has been widely circulated in a bulletin. The classification of Punjab cottons is in progress. Considerable advance has been made in selecting cotton seed suited to the province. Experiments have been made in jute cultivation and in the use of castor cake for manure, as well as in bee-keeping and poultry farming. Attempts to revive sericulture in the province have met with fair success. Progress is being made in scientific well-boring.

North-West Frontier Province.

The experimental seed farm in Dera Ismail Khan district has proved a great success. About half the area is under wheat cultivation. Experiments were also made with maize, rice and cotton.

Central Provinces and Berar.

The superior staff of the Agricultural Department during 1908-9 worked for the first time at its full strength. A larger subordinate staff is needed for the important work of demonstration, which is being extended in co-operation with the Irrigation Department. The agricultural section of the Nagpur Exhibition was very successful. The Agricultural College at Nagpur made good progress. There were 43 students, who were more promising than their predecessors. The "Agricultural Gazette" increases in popularity and its circulation has risen to 4,653 copies. There are four agricultural stations as well as eight seed farms which distributed selected wheat, cotton, and other seeds. Progress was made in experiments with cotton, jute, wheat, sugar-cane and fodders. Analyses of wheat, manurial experiments, and the study of insect pests were undertaken. Demonstration work to show the advantages of transplanting rice was carried out at Labhandih farm. Much attention has been paid to the demonstration of improved implements, and certain simpler descriptions, especially turnwrest ploughs, corn-shellers, winnowers, and chain pumps, are gradually obtaining a sale. Leaflets were issued on the use of turnwrest ploughs, on the cultivation of cotton and ground-nuts, and on cattle diseases. The District Agricultural Associations, consisting of representative landowners, made good progress in the introduction of new varieties of crops and of improved methods of manuring recommended by the department.

Burma.

The complete organisation and the operations of the new Agricultural Department were curtailed through lack of funds. The agricultural station at Mandalay was fully worked, but the formation of two other stations was postponed. It was decided that the time was not ripe for the establishment of an agricultural college. The growing interest taken in the work of the Department by the public is very gratifying. Experiments were made with paddy, jute, wheat, and cotton. The moisture-resisting varieties of Moulmein rice, which were introduced last year in the Akyab district, have become very popular. A survey of the Burma wheats is in progress. Efforts to develop the cultivation of wheat in the Chin Hills were continued, and the outturn was nearly treble that of the previous year. The popularity of ground-nuts as a crop in the dry zone district was fully maintained. The soil and climate of Lower Burma were again found unsuitable for the growth of exotic cottons. Experiments with tea, coffee, and tobacco were disappointing. A number of cultivators' leaflets were distributed on the cultivation of maize, tobacco, cotton, jute, vegetables, &c.

Madras.

The College of Agriculture and Research Institute at Coimbatore was opened in 1909. Much useful experimental and demonstration work was done at the ten agricultural stations. Efforts were made to improve cotton cultivation and obtain a superior strain of cotton by careful seed selection with promising results. Experiments were also made with paddy, sugar-cane, jute, &c. The introduction of ground-nut in some districts has been attended with success, but jute has been a failure. There was a satisfactory increase in the number of oil-engines and pumps used for irrigation. There is a great demand for these boring appliances. Entomological assistants were engaged in the study of various agricultural pests, and operations for the eradication of the palmyra palm disease in Godavari were prosecuted with considerable success. Good work was done by many Agricultural

SCIENTIFIC DEPARTMENTS.

associations to popularise new crops and methods in their districts, and to organise exhibitions and cattle shows.

Bombay.

The year was one of varied activity and substantial progress. At the 10 agricultural stations and farms experiments were made with jowari, bajri, tur and other pulses, til, tapioca, castor, ground-nuts, sugar-cane, tobacco, potatoes, and wheat. Experiments were directed to deciding between the merits of different varieties of the same crop, and to determining the conditions most suited to each, as well as to improving the yield by careful selection of seed. Cultural experiments were undertaken at Surat to elucidate the comparative advantages of deep and shallow cultivation. The value of the American method of "dry farming" as applied to *rabi* cultivation was demonstrated. The best cotton hybrids continue to give a lint more valuable than the local variety. Seed of the best hybrid cottons is being distributed. The cultivation of Broach cotton in the Dharwar district on a commercial scale has proved successful and is being extended. The possibility of growing Egyptian cotton in Sind has been proved, and demonstrations are to take place on a large scale. Certain foreign varieties of ground-nut have proved superior to the indigenous kind and are being widely distributed. The success of sulphate of ammonia as a manure for sugar-cane having been proved, it is now being distributed among cultivators. There was a keen public demand for selected seeds, concentrated manures, and improved implements. Analyses of soils, manures, &c., were conducted by the agricultural chemist. Demonstration work was extended and agricultural shows were more numerous. A large number of bulletins and leaflets was issued. The mechanical and engineering branch, established during the year, began operations with well-boring in Gujarat and with trials of oil engines for water-lifting and cane crushing in the Deccan. Agricultural associations increased in number. The new buildings of the Poona Agricultural College steadily progressed. The students numbered 106, of whom 26 graduated and passed out of the College.

Eastern Bengal and Assam.

Much good work was done in the face of adverse conditions. An increase of staff is required for supervision. Experiments were made at the seven agricultural stations with paddy, sugar-cane, jute, tobacco, potatoes, cotton, fruit trees, and manures. The Fibre Expert was engaged in studying the races of jute with the view of improving the crop by raising and distributing improved seed. He also investigated the cause and possible prevention of "heart damage" in baled jute. The prospects of flax cultivation in Behar are regarded as hopeful. The Department took over from the Bengal Silk Committee the sericultural operations in three districts. The aim is to produce and sell seed guaranteed pure. Several agricultural shows were held and bulletins and leaflets were issued. The laboratory and officers' quarters at Dacca were nearly completed.

## CIVIL VETERINARY DEPARTMENT.

CIVIL VETERINARY DEPARTMENT.

The Department has made substantial progress, and the work is increasing out of all proportion to the staff available to cope with it. Pathologists are needed to deal with the growing demands of the College laboratories for teaching and diagnostic work. A larger European staff, as well as a larger and more highly trained native subordinate staff, are greatly required.

Horse, mule, and donkey breeding.

In those districts of the Punjab, Baluchistan, the United Provinces, and Bombay, in which the breeding of equines specially flourishes, the entire control of horse, mule, and donkey breeding has been transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls breeding operations of every sort. Government stallions are allotted only to selected districts, but the stallions provided in the non-selected districts, partly from District Board funds and partly from provincial revenues, aided by grants from the Government of India, are controlled by the Department. Of these there were on the register, at the end of 1908–9, 64 horses, 102 ponies, and 99 donkeys, mostly located in the United Provinces and the Punjab. The district stallions covered 11,410 mares in 1908–9. Now that the supply of donkey stallions has been placed on a satisfactory footing, it it hoped that mule breeding will improve.

Cattle-breeding.

Owing on the one hand to the decrease in grazing available and on the other to an increase in the more profitable occupation of cultivating crops, there has been a decline in cattle-breeding in most provinces. As regards bovines, veterinary operations

Scientific Departments.

are directed towards improvement of the breeds, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were during the year 38 Government bulls and 536 bulls owned by district boards, the great majority of them being in the Punjab. There were six provincial cattle farms, viz., three in Bengal, one in Bombay, and two in the Central Provinces. The most important centre of cattle breeding is the Hissar Government Cattle Farm, in the Punjab. This farm contained 20 herd bulls and 1,199 cows, besides a large number of young stock and cultivation bullocks, and some mules, donkeys, and sheep. The aim is to maintain a herd of 1,200 cows, so as to meet present demands for ordnance bullocks and for bulls required by the districts and at the farm. A large number of cattle fairs and shows were inspected. Prizes are offered out of both Imperial and local funds. Attempts are being made at Hissar and in other parts of India to improve the breed of sheep for both mutton and wool. Grazing areas for breeding camels are being sought for in the Punjab. Reports on breeds of cattle are being published in Madras and the Central Provinces.

Horse and cattle disease.

More than half the reported cases of glanders were in Bengal. Several provinces, and particularly Bombay and the Punjab, suffered losses from surra. The areas in which surra is enzootic are being mapped out. Only 68 cases of anthrax amongst equines were reported in the whole of India; and of these 36 occurred in Eastern Bengal and Assam.

Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 401,139, of which 238,374 were from rinderpest. About 64 per cent. of these were in Madras. Eastern Bengal and Assam also suffered severely. The available staff in Madras was insufficient to cope with the outbreak. Considerable progress has been made in breaking down the opposition of the people to inoculation, which was performed in 291,960 cases. The reported cases of anthrax numbered 17,790, of which Madras contributed 12,511. Inoculation was performed in 7,450 cases. There were 34,124 deaths from hæmorrhagic septicæmia, chiefly in the Punjab (20,820 deaths), and 26,470 deaths from foot and mouth disease, which was widely prevalent. The preparation "Blacklegoids" was used with success against black quarter, of which there were 10,300 cases. Considerable progress has been made in the study of camel diseases. The sera for inoculation (592,000 doses) were prepared at the Bacteriological Laboratory, Muktesar. The serum method has been found very satisfactory, and is growing in favour. Research work has been undertaken in connection with anthrax, hæmorrhagic septicæmia, rinderpest, surra, and other diseases. A great advance has been made in the drug treatment of surra, which is now curable. A collection of biting flies and ticks is being formed.

Subordinate Staff.

The subordinate staff has been reorganised, but the establishment is below the sanctioned strength, as trained men cannot be obtained. Fifty-two veterinary inspectors and 620 veterinary assistants were employed in 1908–9. Of these 472 assistants visited on tour 64,380 villages and dealt with 342,250 cases. The veterinary hospitals and dispensaries, at which 428,400 animals were treated during the year, numbered 380, an increase of 44 over 1907–8.

Veterinary instruction.

The number of students who graduated in 1908–9 at the four veterinary colleges, viz., the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 160, compared with 148 in 1907–8. There were 505 students under training at the four colleges and 24 at the Burma school at the close of the year. The Punjab College has the strongest teaching staff and the greatest facilities for teaching, and it turns out a majority of the graduates. At present it is overcrowded. The Bengal College trains men for Bengal, Eastern Bengal, and Assam and Burma. A new and well-equipped college building has been opened in Bombay. The demand for admission is very great in the Punjab and considerable in Bengal and Madras, but not so good in Bombay. The demand for vernacular trained men is enormous, and the establishment of a new vernacular college is under consideration.

The Government of India have taken over the "Journal of Tropical Veterinary Science" as a departmental publication.

The total cost of the Department, both Imperial and Provincial, amounted to about £87,000.

## Forest Research Institute.

Forest Research Institute.

The work of the Imperial Forest Research Institute comprises tuition and research in sylviculture, forest zoology, forest botany, forest economy, and forest chemistry.

SCIENTIFIC DEPARTMENTS.

During 1908-9 investigations were undertaken in connection with working plans, teak reproduction, and forest grasses, while the Forest Economist was engaged in inquiring into lac preparation and into the utilisation of many kinds of forest produce, such as woods for matches, lead pencils, and tea boxes, and gum-resins. At the Imperial Forest College 57 students attended the Rangers' class in 1908.

## ARCHÆOLOGICAL DEPARTMENT.

Archæological Department.

The primary function of the Department is the conservation of ancient monuments, but exploration is undertaken so far as means and opportunity permit.

In the United Provinces over £7,000 was spent in the conservation of Muhammadan monuments at Fatehpur-Sikri, Agra, and Allahabad. Repairs were also carried out at Benares, Lucknow, and elsewhere. A number of Buddhist and Hindu monuments in the Cawnpore, Benares, and Fatehpur districts were declared protected by notification. Excavations at Sahet Mahet were continued. In the Punjab the Delhi Museum of Archæology was opened in January 1909. In the North-West Frontier Province excavations at Shahji-ki Dheri brought to light the great stupa (286 feet in diameter) of King Kanishka, which was found to enshrine a reliquary containing what are probably the first authentic relics of the Buddha discovered in India. In Burma action was taken to conserve nine more buildings, including the Nanpaya Temple at Pagan, under the Ancient Monuments Preservation Act for the protection of monuments of historic and architectural interest. Those now maintained at Government expense have been notified as "protected," and others will be added to the list. Among the monuments in other parts of British India that were the subject of special attention, the most prominent were the following:—In the Bombay Presidency, the great cornice of the Gol Gumbaz at Bijapur, the missing and damaged columns in the Elephanta Caves, and the Sarkhej palace; in Madras, the Buddhist monastic remains at Sankaram and Ramatirtham; in Bengal, the Black Pagoda at Kanarak, the gateway of the fort at Palamau, and the ancient buildings at Pandua and Tribeni; and in the Central Provinces, the fort at Chanda.

## MEDICAL RESEARCH INSTITUTES.

Medical Research Institutes.

In 1907 the bacteriological laboratories in India were placed on a definite footing, and the Bacteriological Department now comprises 12 appointments distributed among the institutions named below. At the Central Research Institute, Kasauli, the staff during 1908 completed an enquiry regarding the etiology and mode of spread of enteric fever and published the results. Conclusions were published regarding the preparation and keeping properties of bacterial vaccines, and investigations of dysentery and lathyrism were begun. The Bombay Bacteriological Laboratory was, as usual, utilised for the work of the Plague Research Commission. Much work was done in connection with plague vaccines, which are prepared here for the whole of India, with disinfectants for killing fleas, and with poisons and other methods for destroying rats. About 110,500 rats were examined for the Bombay Health Officer, and 13,489 were found to be infected with plague. Practical instruction in plague inoculation was given, and booklets were issued on the preparation and use of anti-plague vaccine and on the cause and prevention of plague. Investigations of snake-bite and malarial fevers were undertaken. A great deal of bacteriological work was done. At the King Institute of Preventive Medicine, Madras, much chemical and bacteriological work was carried out. Enquiries were instituted regarding the town water supplies of Madras Presidency. Mr. W. M. Haffkine, C.I.E., has been entrusted with scientific research at the laboratory attached to the office of the Sanitary Commissioner of the Government of India in Calcutta. Three memoirs or pamphlets bearing on medical research were issued in 1908.

# CHAPTER XIV.

## EDUCATION, LITERATURE AND THE PRESS.

*(For further details see Statistical Abstract for British India, Tables* 105 *to* 116.)

### EDUCATION.

EDUCATION.

General.

Educational institutions in India are of two classes :—

(1) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(i) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(ii) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering, and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903–4.

Madras.

The year 1908–9 was one of steady progress in Madras. The total expenditure, direct and indirect, on education amounted to £782,730, the highest figure that has yet been attained in any one year. There was a further advance in the total number both of schools and of scholars. There were 1,099,615 scholars in all, or 42,445 more than in the previous year, an increase of over 4 per cent. The percentage of boys and girls under instruction to those of school-going age rose, in proportion, to 32·4 and 6·3 respectively. All classes of schools under public management and aided institutions contributed to the increase. 129,866 boys and 15,900 girls were studying English at the close of the year. Arabic and Sanskrit maintained their position as the most popular of the classical languages, and all the vernaculars were more largely represented than in the previous year. A scheme for the establishment of training schools for higher elementary teachers and for the general reorganisation of the training institutions in the Presidency was approved. A novel feature of the year's work was the number of educational excursions made by the students and staff of several of the Government training schools at their own expense, each of the excursions having a definite object in connection with the course of training and furnishing topics for composition. Important changes in the arrangements for inspection were carried into effect, the staff having been strengthened by the addition of two inspectors in the Indian Educational Service and of nine district assistant inspectors. Public elementary schools for boys rose in number by 546 and in attendance by 44,294. An improvement both in the number and the qualifications of the teachers is reported; there were

EDUCATION. 27,351 certificated teachers, or 1,725 more than last year. A new scheme of studies has been introduced, and suitable books on several subjects, such as nature study, kindergarten occupations, hygiene, botany, &c., have been written. The staff of supervisors has been reorganised, and their pay accepted as a charge upon Provincial revenues. Relieved of this expenditure local and municipal bodies will be able to spend more on elementary education, either by giving grants in aid or by opening fresh schools; in the latter respect some progress is already reported. Judged by statistics, elementary education may be considered to have made an advance during the year, but it is to be noted that the increase in the number of schools is due, in part, to the transfer to the "higher elementary" grade of certain institutions hitherto reckoned as "secondary." The same process of re-classification accounts for a decline in the number of secondary schools, but the figures of attendance in them rose from 94,603 to 95,765. Much attention was paid during the year to the question of instituting a "school final examination," such as is held in Bombay on completion of the secondary school course. A scheme was published for general information, and the opinions and suggestions of public bodies and individuals likely to be interested in the matter were specially invited. These were under the consideration of the Government at the close of the year, and the scheme has now been approved. The hostel system has made but slow progress in secondary schools. In the Arts Colleges, now numbering 33, considerable improvement was effected with the help of a University grant, but much remains to be done to meet the full requirements of the new University Regulations. Twenty colleges had hostels attached to them; these were all filled, and the supervision thus exercised, together with the tutorial system introduced in some of them, worked satisfactorily. There were no serious cases of breach of discipline in these colleges. The University received a special grant (£3,330) from Government funds towards the cost of University vacation lectures. What may be called the professional institutions, viz., the Law, Medical, and Engineering Colleges, well maintained their efficiency. Female education is still confined almost wholly to the elementary stage, but with this limitation a further advance was made, the number of girls under instruction being 178,867; more than half of these were at mixed schools. European education calls for no special comment; the numbers remained practically stationary. The total expenditure on education, which was the highest on record for the Presidency, was provided as follows:—from Provincial funds (in round figures) £266,300; local funds, £63,000; municipal funds, £19,400; fees, £218,200; other sources, £215,700.

Bombay. In the Bombay Presidency the year was marked by progress in nearly all directions. Especially satisfactory is the extension of facilities for primary education. The total number of institutions has increased from 14,114 to 14,589, and the total number of scholars from 749,391 to 792,559. This represents 34·1 per cent. of the boys and 7 per cent. of the girls of school-going age. As regards university examinations, the most noteworthy fact is the disproportion between the number of those appearing for the Arts degrees and that of candidates for the Science degree; while 524 candidates were examined for the degree of B.A., only 20 sought the degree of B.Sc.; out of these 350 and 16, respectively, were successful. When the plans at present under consideration for the application of the large sum (£120,000) now available for the improvement of Science teaching have been matured, more students will no doubt present themselves for examination in Science subjects. The total number of Arts Colleges remained the same, viz., 11, but the number of students continued to rise; there are now 3,788 in all. As regards special instruction, good work is being done at all the training colleges; the equipment of the Victoria Jubilee Technical Institute at Bombay was further improved, and the increase in the number of candidates for the London Chamber of Commerce examination shows a growing interest in commercial education. In secondary schools, also, the figures show an increase, the number of such institutions at work being 527, with 66,000 scholars, including 6,000 girls. There have been regrettable cases of disregard of discipline and disorderly conduct on the part of certain pupils in schools of this class, and Government found it necessary to publish a Resolution on the subject (30th September 1908) and to direct the attention of headmasters, managers, and parents to it.

The great event of the year was the raising of the minimum pay of assistant teachers in primary schools to Rs. 9. This was carried out for the last six months by means of an extra grant of £3,330 from provincial revenues. Further funds are being yearly provided for the development of primary education, so that within a short time it is expected that new schools will be established in no less than 1,650 villages which

the Director of Public Instruction mentions as requiring them. In the year under report 262 new public primary schools were opened. As the number of schools rises, the question of the cost of buildings becomes more pressing. In the northern division of the Presidency, when a village is given a new school, the people are required to provide a rent-free building for one, two, or three years. But the period is seldom extended by them, and the reluctance of the people to provide buildings is significant of their general attitude towards education. On the important question of fees, it is reported that, if full effect is given to the existing rules as to remission, the probability of any boys being prevented from attending school by inability to pay fees becomes very slight. Even of those who pay, a large proportion pay only from one half to one anna. The figures for 1908–9 show the substantial increase of 9,170 in the attendance of girls in primary schools, the total for the Presidency being now well over 100,000. The total expenditure on education during the year was £786,870. EDUCATION.

In spite of the after-effects of the famine of 1907–8 which led to retrenchment in every branch of the administration, education in the United Provinces has shown a steady advance in many directions during 1908–9. The higher inspection staff was recently reorganised, and there are now 9 inspectors of schools, one for each revenue division, as well as a special inspector for training institutions. The reorganisation has proved beneficial. Conduct and discipline in the schools and colleges have been generally satisfactory. The total number of scholars varied but slightly from the preceding year, there being an increase of less than 4,000. The increase in expenditure, on the other hand, amounted to £71,772, and the benefit of this will be felt next year. The number of Arts Colleges remains the same, but in several important institutions, including the Muir Central College, St. John's College, Agra, the Reid Christian College, and the Central Hindu College, the staff has been considerably strengthened. The expansion of the Roorkee College, begun in 1906, is now practically complete. The hostel system continues to extend, and 47 per cent. of the 2,763 college students are now residing in boarding-houses. There has been an extraordinary demand for English education in the last few years, with the result that many of the schools are overcrowded. The declared policy of Government in this matter is that the State cannot provide the means of secondary education for the whole population; it can only set a standard by maintaining at a high state of efficiency model schools under Government management, leaving the rest to private enterprise, assisted by such grants as may be earned, and as the provincial finances may be able to provide. A notable feature of the year's record, and one full of promise for the future, is the munificence of private benefactors, who have either founded and endowed high schools themselves, or have joined with others in subscribing largely for the purpose. The Kshatriya High School at Benares, built and endowed by Raja Udai Partab Singh, C.S.I., of Bhinga, is worthy of special mention. In addition, Government secondary schools have been established at Ghazipur, Lucknow (2) and Meerut, and much has been done to improve existing institutions by liberal grants, and to equip them for the new school-leaving certificate examination. This will be held for the first time in 1910, and is designed to provide a better preparation for the practical business of life than the existing matriculation test; in particular, greater facilities have been provided for the thorough and practical teaching of science. In primary schools there are now 461,600 pupils, a slight increase on the figures for 1907–8, but the number of such schools decreased by 880. This result is attributed to the disappearance of schools in which proper instruction was not given, and from which Government aid has, in consequence, been withdrawn; to want of funds for new schools; and to the effects of famine and malarial fever. On the other hand, more schools were maintained by District and Municipal Boards. Gradual progress in the supply of trained teachers is reported. The Government Training College at Allahabad, which was not in accordance with modern requirements, has been replaced by a higher-grade college at Allahabad, and a lower-grade college at Lucknow: the curriculum and methods in normal schools have been improved, and the classes for primary school teachers continue to give satisfaction. The numbers of girls' schools and of girl scholars have risen, the former by 10 per cent. to 1,254, and the latter by nearly 4 per cent. to 49,478, of whom over four-fifths are in the lower primary stage. In pursuance of the recommendations of the Industrial Conference a beginning was made with the scheme for an industrial school at Gorakhpur, and the Bareilly carpentry school and the Lucknow school of design were nearly completed. The total expenditure on education rose from £491,723 to £563,495. United Provinces.

EDUCATION. Punjab.

Educational progress, as measured by statistics showing the increase in schools and scholars, has now come to be regarded as so much a matter of course in the Punjab that the Report on Public Instruction concerns itself mainly with the rate of increase. This rate has not been so high in 1908–9 as in the previous year, but an increase of 91 in institutions and of 9,513 in scholars constitutes a fair record for the year. The number of scholars now stands at 302,576, representing 16 per cent. of the boys and not quite 3 per cent. of the girls of school-going age. As compared with six years ago, the number of boys and girls attending public institutions shows an increase of 31 per cent., and during the same period expenditure by Government and local bodies has increased 72 per cent. Only 21 per cent. of the cost of education is now met by fees. Primary education is already free for sons of agriculturists and for a proportion of other boys of the poorer classes, and exemption was extended during the year under review to the sons of schoolmasters in receipt of salaries of Rs. 30 or less. On the general question it is held that the pressing need of the time is for more and better schools rather than for cheaper schools. Collegiate education in the province is on a high level, and there has been more activity in this branch of education than in any other during 1908–9, each institution striving to put its house in order so as to fulfil the University requirements. There are 10 Arts colleges in all, as last year; the number of students has risen by 7 per cent. to 1860. The number of secondary schools remains practically unchanged, but the attendance rose by 4,382. In the University Entrance Examination only 1,222 out of 2,697 candidates passed, but in the Vernacular Middle School Examination the percentage of success was much higher, many schools securing cent. per cent. The number of primary schools rose from 3,343 to 3,408, and the number of pupils from 146,290 to 149,806. The slackening of the rate of progress is attributed by inspectors chiefly to the prevalence of malaria, but the lack of competent teachers is also a serious difficulty. The new rural schools, with a curriculum not leading up to the secondary stage, have not become popular. Many agriculturist parents have ambitions for their sons, and modified courses are being devised to admit of the pupils proceeding from the rural schools to secondary schools if they so desire. The number of training institutions remained unchanged; the province is comparatively well supplied in this respect, though an expansion of the Normal schools is needed to meet the growing demand for village teachers. The institutions and special classes imparting scientific and technical education continued as before, but in the Law College a whole-time staff of one principal and two professors has been appointed. Three professorships have been added to the Medical College at Lahore, the Veterinary College is full, and the establishment of another veterinary college to meet the demand for veterinary assistants has been suggested. There were signs of progress in female education, the total number of girls' schools having risen from 607 to 625, and of scholars from 23,588 to 24,916. The advance is more marked than the figures of attendance indicate; old prejudices, it is reported, are breaking down; people are becoming more ready to send their girls to school, to keep them there to a later stage, to pay fees for their education, and even to send them to live in boarding houses. The opening of the Victoria May Purdah School has given a much-needed stimulus to secondary education for girls of the better classes. There was a further increase in the number of Muhammadan boys in public institutions from 87,168 to 89,564, and of Muhammadan girls from 6,892 to 7,380. Education is still backward in Native States, and there was no marked progress during the year. The proportion of scholars to children of school-going age is 1 in 26 in Native States, as compared with 1 in 10 in British territory. The total expenditure on education in the Province was £370,618.

Central Provinces and Berar.

The general conditions of the year in the Central Provinces and Berar were not favourable to the progress of education, but in spite of the effects of plague and scarcity, the educational results show an all-round improvement over those of the previous year. Much of the activity in educational matters cannot, however, be accurately gauged at present, as it was devoted to a considerable extent to the discussion and formulation of schemes of far-reaching reforms, such as the improvement of secondary education, the prospects of the provincial service, the training of primary school teachers, the institution of a school final examination and the introduction of free primary education. The last-named important question was under the consideration of the Government of India; but the Chief Commissioner reports that the requirements of existing schools in respect of a more efficient and better paid teaching staff and improved accommodation and equipment are in them-

selves enough to absorb all the available resources of Government and local bodies, and should take precedence of further multiplication of schools. The amount of money required for buildings and equipment is enormous, and the supply of it cannot be hoped for at once. During the year the number of institutions and pupils rose by 4·6 and 7·1 per cent. respectively. There are now 3,651 schools and colleges, with 276,700 students. The percentage of scholars and children of school-going age has risen, for boys from 23·7 to 25·3 and for girls from 2·2 to 2·5; in Feudatory States the proportion is a trifle smaller. The number of students in arts colleges rose from 381 to 457. A feature of the year is the success of the Victoria College of Science (now established as a separate institution) at the B.Sc. examination, 7 out of 12 candidates having passed. It is also noteworthy that discipline improved among college students, some of whom have declared themselves to be "sick of politics." The number of secondary schools in British districts rose from 370 to 387 for boys, and from 35 to 38 for girls, with 47,885 and 2,363 pupils respectively. The University matriculation results were unsatisfactory, only 169 passing out of 603 candidates. The percentage of failures is particularly noticeable in schools at Divisional Headquarters; thus in the case of two high schools at Jubbulpore only 3 out of 31 and 8 out of 53 candidates passed; this poor result is attributed to the diversion of the boys' minds from their studies by the morbid attraction of politics. There is a marked increase in the fervour with which primary education is received in rural tracts, a circumstance which is the outcome partly of the recent lowering of the fees and partly of a general advance in public opinion. Steady progress was made in this stage; the number of pupils increased by over 13,000; in particular the rise in the number of scholars of backward communities, such as Gonds and other aborigines, was phenomenal, amounting during the year to 50 per cent. Much attention has been paid to the improvement of the training of teachers. The magnitude and urgency of this problem is indicated by the fact that out of 2,928 secondary teachers only 703 were certificated, and out of 6,649 primary teachers there are 3,821 entirely untrained; moreover, the yearly out-turn of trained teachers is only 336, whereas the annual requirements amount to 864. To remedy this deficiency a scheme for the establishment of a training college at Jubbulpore, and for the erection of two new normal schools and the extension of an existing one is under consideration. The condition of technical and industrial education was good, and a State technical scholarship for study in England has been granted to a student from these provinces. Female education showed a satisfactory advance, a noticeable feature being the increased number of girls at boys' schools. In all, the number of girls' schools rose from 275 to 303, and of girl scholars from 14,818 to 16,576; nine of these schools have been provided with buildings during the year, but there are 66 still without them. Statistics of Muhammadan education show a satisfactory increase of 1,967 boys and 704 girls. The total expenditure on education was £193,047.

EDUCATION.

The year, though not marked by any striking reforms, has been one of steady growth, except in the collegiate and high school branches. Burma is still very backward in respect of the higher education. There are only two arts colleges, attended by 155 students. The idea of a separate university for Burma is again being considered, but in the meantime arrangements are being made with the Calcutta University, which, it is hoped, will enable more Burmese students to graduate. Much has been done during the year to render the Rangoon College more efficient; it has been affiliated to the University in five subjects; four new teaching posts have been created, and a Governing Body has been appointed on which both the teaching staff and the general public are represented. Secondary education remains practically stationary. In primary education there has been an advance, the number of pupils in public institutions having risen from 183,290 to 192,293. As regards Anglo-vernacular schools, the syllabus for the new High School final examination has been settled, and the test was to be held for the first time in 1909. In vernacular education the chief feature of the year has been the classification of aided schools into those that follow the courses prescribed by the Department and those that do not; schools of the latter class, which are doing good work on their own lines, will receive assistance, provided they comply with certain not very stringent conditions as to giving instruction in reading, writing, and arithmetic, maintain an average daily attendance of 10 pupils, and are open to Government inspection. Special measures have been taken to promote education in the Arakan Division, where it was in a backward state; vernacular schools are to be established at the cost of district cess

Burma.

EDUCATION. funds; already a commencement has been made with seven schools in the Akyab district. Female education in Burma is not complicated by religious difficulties, and the increase in the number of girl pupils in public institutions, by 4,138, is satisfactory; no less than 75 per cent. of the girls were being taught in boys' schools. The number of European schools has increased from 18 to 24, and the attendance in them from 2,334 to 3,135. The number of Muhammadans under instruction has also risen by no less than 2,245, and now stands at 11,783. Schools for "special classes"—the Karens, Shans, and Talaings—number 105 more than last year, and the attendance rose by over 1,000. Private institutions, mainly monastic, play an important part in Burma; the total number of such schools in 1908–9 was 16,236, with over 170,000 pupils, nearly all of whom are Buddhist. The total expenditure on education during the year was £262,120.

Missionary bodies continue to render inestimable service to the cause of education in Burma, not only in large centres of population, but by steady work in distant parts of the province, among the Shans, Karens, Taungthus, Kachins, Chins, and Inthas.

North-West Frontier Province. In the North-West Frontier Province the year has been one of fair progress. Though the number of primary schools fell by three, that of secondary schools rose by one, and the number of scholars shows a satisfactory increase in all institutions for general education. The figures are 19,235, as compared with 18,871 last year. Private schools have again shown a tendency to decline, there being 716 fewer pupils this year. The total number under instruction, in public and private institutions combined, was 28,891. There is an increasing desire among Pathans to give their children the benefit of secondary and collegiate education, and those who can afford it send their sons to the Muhammadan Anglo-Oriental College at Aligarh. At present there is only one Arts College in the Province, the second-grade Mission College at Peshawar, with 22 pupils, but steps are being taken for the establishment of a new Provincial College. Examination results were, on the whole, favourable, especially those of the Normal School at Peshawar, which succeeded in passing 27 out of 28 candidates for the Vernacular certificate. Female education is progressing among Hindus and Sikhs, and the Muhammadans are also becoming alive to its advantages. The number of trained and better qualified teachers is increasing, and every year Frontier young men proceed from the Normal School, Peshawar, to become teachers in the primary schools of the Province and of Baluchistan. The total expenditure of the year amounted to £21,275.

Coorg. The year under review brought no material change to the educational arrangements in Coorg, but the numbers attending public schools rose from 4,543 to 5,316. There was a very satisfactory increase in the upper and lower primary classes. The percentage of pupils under instruction to those of school-going age was 12·95, as compared with 11·19 in the previous year. The educational institutions in the Province were one training school, one upper secondary school (High School), at Mercara, one lower secondary school at Virajendrapet, and 87 primary schools. An officer of the Indian Educational Service has been appointed as headmaster of the High School. Additional boarding-house accommodation is being provided at this and the other secondary schools. In private schools the number of pupils rose slightly to 476. The system of village school committees, or panchayats, was on trial during the year, and was found to be useful in some cases.

Bengal. The year has been marked by considerable activity in educational matters. The total expenditure from all sources rose from £830,415 to £963,330 in 1908–9. Since 1905-6 the expenditure from provincial revenues has increased from £226,660 to £331,660. The number of boys under instruction was approximately 1,200,000 representing 26·5 per cent. of the total male population of school-going age. Primary schools for boys numbered 34,472, or 518 more than in the previous year. Special attention was paid to the training of teachers and to improving the agency for inspection; as regards the latter point, the aim hitherto has been to increase the number of sub-inspectors so that they might have units of reasonable size to control; a sufficient advance having been made in this direction, efforts are now being directed towards improvement of the teaching staff. The system of *guru*-training schools has been extended throughout the province; out of 191 such schools to be constructed, 54 have now been completed, 87 are under construction, and 50 have still to be commenced; it is reported that many *gurus*, after being trained, do not return to their duties as teachers, and this adds to the difficulties of the Department; in any case, the advance can only be slow, as much leeway has to be made up. Expenditure on secondary education increased by £9,530, and the number of pupils in high schools by over 2,000. The inspection

EDUCATION.

of these schools by officers of the Education Department on behalf of the University is reported to have had a stimulating effect. Much attention was paid to the institution of a school-leaving examination, and a syllabus with five alternative groups of subjects has been devised; it now remains to construct the machinery for holding the examination. In collegiate education there was a steady advance in all directions to conform with the requirements of the new University regulations. Eight additional appointments have been sanctioned in the Indian Educational Service, and improvements took place in buildings, science equipment, libraries, and hostels. Governing bodies for Government colleges were reconstituted at the instance of the University and invested with independent, though limited, powers in respect of the responsible management of these institutions. An increase of nearly 27,000 in the number of Muhammadans under instruction is reported; arrangements were made for the detailed inspection of all the private Madrasas in the Province, and it has been decided that in each inspector's division a Muhammadan inspecting officer should be appointed to supervise Muhammadan education exclusively. As regards female education there were 139,245 girls under instruction in primary schools, 163 at the collegiate school, and 31 at the Bethune College, the one Female Arts College in the province. The Training College at Patna for female teachers was opened in January 1909 under a lady principal from England, and it is reported that the earnestness of the women students and their eagerness to learn were remarkable; but the absence of fit material for training, the unwillingness of many parents to pay for the education of their daughters, and the early age at which girls are taken away from the schools stand in the way of real advance in female education. On European education £22,220 more was spent than in 1907–8. The code for European schools was revised, after prolonged discussion, and was to have come into force on 1st January 1910, but it was found necessary, on account of representations made to Government, to defer bringing it into operation. Meanwhile the re-grading of the schools has been proceeding. As regards professional education, the schemes for the University Law College in Calcutta and the Patna Law College have been brought into full working order, and pleadership classes have been revived in other colleges. The hostel system is gradually being developed in Bengal; the engineering institutions at Sibpur and Bankipore are now entirely residential, but the same success was not achieved in schools as in the case of colleges, and it is reported that the state of discipline still leaves much to be desired.

Eastern Bengal and Assam.

In Eastern Bengal and Assam the year was one of record progress in almost every department of educational activity. The total number of public institutions has increased from 22,520 to 23,933, and the number of pupils to 903,773, an increase of 81,797, surpassing even the increase reported last year, which itself had never previously been equalled. The proportion of scholars to children of school-going age now stands as follows:—Boys, 35·35 per cent.; girls, 5·36 per cent. Taking Muhammadans and Hindus together the total number of male pupils increased by 7·8 per cent., and that of the female pupils by no less than 27·4 per cent. This advance is a direct measure of the success that is attending the distribution through boards of the Imperial grant for primary education. The total expenditure on public education rose from £388,569 to £442,290, of which sum £147,320 was received in fees. With regard to collegiate education, the number of institutions remains at 11, of which five are now of the first grade. Both the Dacca Colleges were equipped with up-to-date laboratories, and Dacca can now challenge comparison with any collegiate town in India in this respect. To meet the demands of the new University regulations nine additional professors have been appointed in Government colleges. The inspecting staff was also strengthened, 34 additional officers being added to the cadre of the various services, while 23 new posts were created in Government high schools. Secondary schools have increased from 1,172 to 1,205, and the number of pupils in them from 122,981 to 132,151. The inspection of high schools on behalf of the University was completed during the year, and since the inspection an improvement in the tone and management of these schools is reported. The total number of pupils in high schools, including those for girls, was 51,904, an increase of 4 per cent. on the previous year. The establishment of lower primary board schools has been commenced in the transferred districts, where aided institutions have hitherto been the mainstay of primary education. The number of pupils has risen by 8·4 per cent. A revised curriculum is being framed, more suited to the requirements of an agricultural population. At present, however, the quality of the instruction given in primary schools is described as nothing short of deplorable. Seeing that out of 27,814

EDUCATION. teachers in boys' schools in the province, only 3,793 are known to have received any kind of training, it will appear that the task before the Department in training them is colossal. A scheme has been approved for imparting a more reasonable and thorough training, and for ensuring, ultimately, that none but trained teachers shall find places in any school receiving Government aid. Steps are being taken to set up institutions of an improved type in place of the existing unsatisfactory *guru*-training schools, and a new training college for English teachers will shortly be opened; 1,181 persons were being trained at the close of the year. All records, as regards female education, were easily broken in 1908–9; the increase in the number of girls at school was almost as great in the single year as in the entire quinquennium of 1902–7 (24,493, as compared with 30,037). Musulmani girls accounted for 71·6 per cent. of the total increase. Co-education met with considerable success in backward localities, but is regarded with disfavour by the better-educated of the population. The increase of 56,132 in the number of Muhammadans at public schools surpassed even last year's record, and a large number of Muhammadan students may be expected in colleges in the near future, as more of them passed the University Entrance Examination. Technical and industrial education remains in an embryonic state, and must so continue until a separate Department of Commerce and Industry has been constituted to control and direct it. Proposals for the formation of such a department have now been sanctioned. The political agitation continued to have a harmful effect on the discipline of schools. Towards the end of the year, however, disorderly demonstrations ceased. Among remedial measures the establishment of properly-managed hostels, or boarding-houses, is considered of great importance; large grants-in-aid have been made for the purpose, and the number of hostels increased steadily. The fact that the expenditure of the Education Department has risen from a little more than £73,330 in the year immediately succeeding the formation of the Province, to nearly £143,330 during the year now under review, not only testifies to the progress that has been made, but also shows, when taken in conjunction with the enormous possibilities of further progress, that the want of educational facilities was not the least important respect in which the administration of the area now comprised in the Province required early and comprehensive reform.

LITERATURE. ## LITERATURE AND THE PRESS.

Bombay. In Bombay 1,676 publications were registered, as compared with 1,138 in the previous year. The total increase is made up chiefly of an increase of 238 under the heading Miscellaneous and 127 under Religion. In Arts the number has risen from 34 to 66; in History from 11 to 37; in Medicine from 12 to 60; in Poetry from 179 to 223; in Politics from 6 to 20; and in Philosophy from 15 to 46. Works of Biography show a slight increase, while the numbers under Drama, Fiction, Law, Science, and Travels have fallen. Books published in English numbered 79; noteworthy among them were a translation of the *Letters of Aurungzebe*, by J. H. Bilimoria, a scholarly essay on *The Philosophers and the French Revolution*, by P. A. Wadia, and *India of to-day*, by Syed Sirdar Ali Khan, a collection of essays, frank but sober and discerning. Among books in Gujarati may be mentioned a biography of Garibaldi, translated from the Urdu work of Lala Lajpatrai, and a translation, from Bengali, of a life of Krishna, in which the age and authenticity of the Mahabharata and cognate works are discussed; the author finds three strata in the poem, of which the earliest and most authentic represents Krishna as an ideal man, without divine attributes. Gujarat is prolific of fiction and of miscellaneous books. Among the latter, the *Stri Pokara* of Pandita Jamnabai, published by the Gujarat Vernacular Society, is an able plea for female education and liberty. The same society has published an excellent translation of Mill's *Subjection of Women*, by J. R. Patel. In Marathi 198 books were published, including some interesting biographies and a series of *Lives of the Poets of Mahárashtra*, by J. R. Ajgaonkar, somewhat after the manner of Johnson's Lives; the writer contrasts the morality and piety of his subjects with the private lives of some English poets, and attacks the social reformers of to-day. Marathi drama is represented by eight works; one, entitled *The Culmination of Love*, is a translation of *Romeo and Juliet*, which does not always catch the meaning of the original; whilst *The Bower of Love*, by G. C. Deo, is a fairly successful adaptation of *As you like it*. *The Battle in the Bharat*, by A. V. Barwe, is an excellent adaptation of the Sanskrit

play, *Venisamhara*. Political treatises in Marathi include a translation of seven speeches of Arabindo Ghose; another of Lala Lajpatrai's *Story of My Deportation*; an account of the proceedings against the editor of the *Kal* for sedition; and a volume of select articles from the *Kal*. Marathi poetry also was mainly of a political type, and contained numerous allusions to the conviction of B. G. Tilak. Among books in English and Marathi may be mentioned a series of selections from the diaries of the Peshwas and others, published by the Deccan Vernacular Translation Society. LITERATURE.

As regards newspapers, the most remarkable increases of circulation occurred in the case of two extremist organs, the *Kal* and the *Hindu Punch*. The number of newspapers and periodicals treating of current political topics remained practically unchanged, and at the close of the year stood at 178. Of these 81 were conducted by Brahmins, 50 by other Hindus, 21 by Parsis, 17 by Muhammadans, and 9 by Christians. English was the language of 10 per cent. of the newspapers, and Marathi of 35 per cent. The tone of a certain section of the press underwent a change for the worse; discussion of the extremist programme led to an increased amount of vilification of Government and a more or less disguised sympathy with the methods of anarchy, which involved its leading exponents in a series of prosecutions. During the year the editors of the *Kesari*, the *Swarajya*, the *Arunodaya*, and the *Rashtramukh*, and two successive editors of both the *Kal* and the *Hind Swarajya* were convicted and sentenced for sedition. On the other hand, the loyal and moderate sections of the press warmly welcomed the Royal Message of November 1908 and the announcement of the reforms, and personal references to Sir George Clarke and his administration were almost uniformly marked by friendliness and sympathy; in particular His Excellency's efforts to enlist the Native Press on the side of inoculation against plague met with a cordial response.

In Madras the literary activity of the previous year was fully maintained. The number of books and periodicals published was 2,207, as compared with 1,574 in 1907–8; the increase is thus very marked, though it may be due to some extent to a more strict enforcement of the rules regarding registration. Religion continues to be the dominating force in indigenous literature; it was the subject of 685 works. Of the rest, 231 related to law, and 193 to languages, while 132 works were classed as poetry and 91 as drama. On politics there were only 18 publications, and on history 15. Among individual works may be mentioned *The Universe and Man*, by Swami Ramakrishnananda; a critical review in Sanskrit of Kalidasa's epic poem *Raghuvamsa*; and a work in Tamil entitled *Government and Patriotism*, designed to show the fairness and benevolence of the British Government. Two dramatic publications in vernacular, entitled *Yayati* and *Vasanthikai*, are also worthy of notice. Krishnamachari's *Indian Phonography*, a manual of short-hand adapted for the classical and vernacular languages of India, supplies a long-felt want. As regards newspapers, there were at the close of the year 65 published in English and 191 in the vernacular. Ninety-six papers were started, and 103 discontinued publication in the course of the year. Among the subjects dealt with by the Vernacular and Anglo-Vernacular Press were religion, to which 64 papers were devoted; educational and literary matters with 44 publications, politics with 39, and law with 11. Many of the remaining papers were of a miscellaneous character. Much interest was naturally excited in political circles by the breaking up of the Congress at Surat, the Reform Scheme, and the Royal Proclamation; the course of events in Turkey also attracted attention, especially among Muhammadans. The boycott and other devices employed by the extremists in Bengal were not viewed with favour by the more moderate native papers. Madras.

The total number of publications registered in the United Provinces rose in number from 1,384 to 1,433. Religious works and poetry contributed largely, as usual, to the total. The Islamic literature of the year was remarkable for the bitterness with which the Sunni-Shia controversy was carried on, and numerous polemical books and pamphlets were issued by Arya Samajists. Among books on history may be mentioned the *Kanz-ut-Tarikh*, by Maulvi Muhammad Razi-ud-din, an interesting account of Budaun; and among biographies, a translation of the *Life of Mazzini*, by Lala Lajpat Rai, has found its way into the vernacular of the province. Books in verse rose in number from 316 to 403; most of these dealt with religious subjects, but some were aggressively political. Dramatic works were few in number and of poor quality. The fiction issued during the year was remarkable United Provinces.

LITERATURE. for its ultra-Gallic lubricity, but included a number of novels dealing in an interesting manner with questions of social reform—such as child marriage, the *pardah* system, and the comparative merits of monogamy and polygamy. There was a revival of interest in Eastern philosophy, and two legal works, D. C. Banerji's *Law of Arbitration* and Agarwala's *Indian Practice*, deserve mention. Amongst magazines, *Indian Thought* and *The Pandit* continued to uphold their reputation for scholarship. The number of newspapers and periodicals fell from 121 to 114, of which about 60 per cent. were conducted by Hindus and 33 per cent. by Muhammadans, while two publications were edited by Theosophists, two by Christians, and four by joint editors of different creeds. Two new periodicals are noteworthy, the *Prabudha Bharat*, or Awakened India, a Vedic philosophical and religious monthly of enlightened moral tone, and the *Saddharm Pracharak*, which had great influence in the Arya Samaj, and enjoyed a wide circulation beyond the limits of the province. The tone of several newspapers changed for the worse during the year, especially after the outrages in Bengal; some writers declared that nothing could be gained by constitutional agitation and advocated recourse to stronger measures. Muhammadan journals, on the other hand, emphatically dissociated themselves from these views, and at times were unsparing in their denunciation of the boycott and other extremist methods of agitation. The policy adopted by the Government of warning an editor on the first appearance of an article that rendered him liable to a criminal charge generally proved effective, but it became necessary to proceed to a prosecution in three cases, under section 124 A. of the Penal Code.

Punjab. Fewer publications were received for registration in the Punjab, the number being 1,185, as compared with 1,204 in the previous year. Of books, religion, as usual, claimed the highest number, viz., 293, and attracted more writers than any other subject. It is a sign of the times that religious works, which are in classical language and unintelligible to the majority of readers, are being translated into the vernaculars of the Punjab, and a new critical spirit is noticeable in several works which show a tendency to question authority and try to explain religious doctrines in the light of reason and science. The volume of verse published every year in Punjab and Urdu is immense; most of the poems deal with the lives and adventures of popular heroes. Notable among those issued during the year under report are Ufaq's *Guru Gobind Singh*, describing scenes in the life of the Guru, and the *Tuzuk-i-Qaisari*, a historical poem which reviews the chief incidents of Indian history, and enumerates the blessings of British rule. There is little strictly political literature in the Punjab, but biographies of political and religious leaders are coming into vogue. Newspapers numbered 252, of which 38 were published in English and 182 in Urdu. Proceedings under the Newspapers (Incitement of Offences) Act had to be taken against one newspaper, the *Inquilab* of Lahore.

Burma. Out of 221 books published during the year in Burma, 83 were devoted to religious subjects; among them were numerous commentaries on the *Vinaya*, treatises on the Beatitudes, and stories of the Buddha. Many of these works were little more than pamphlets. Only four books are classified under the head of Poetry; the most noteworthy is the *Patcari Pyo Thit Hnin Vatthu*, by Saya Taing, a clever attempt to imitate and revive the spirit of the old Burmese poetry which is fast dying out. Another interesting publication is the diary of the late Kinwun Mingyi, a record of the author's visit to England in 1872 as head of a special mission from King Mindôn Min of Burma. Under the heading of language, the most important contribution was a Kachin dictionary written by the Rev. O. Hanson; this is the first serious attempt to give a full and complete account of the Kachin language, and is the result of sixteen years' research and personal investigation among the natives. No original work of fiction was produced during the year, and the drama, as a whole, was disappointing. There were 42 newspapers published, of which 23 were in English and 12 in Burmese.

Bengal. There was a greatly increased literary output in Bengal during the year under report, 3,417 publications having been registered as compared with 2,995 in the previous year. Of these publications, 2,341 were books, 1,903 being original works and 438 re-publications or translations. The new spirit is stimulating and giving a new direction to literary activity. Light literature, which till lately occupied the attention of the best writers, is giving place to more serious subjects. Laborious, but rather uncritical attempts were made to write the history of Bengal in the light of modern research. Of an unprecedented number of biographies, the majority were life-stories of pious and philanthropic persons or of religious and social reformers.

LITERATURE.

Philosophical publications consisted principally of attempts to popularise the study of Hindu philosophy. Science still receives no contribution worthy of mention. In the domain of drama a work entitled *Nur Jehan* is the only one of real importance. The bulk of the novels issued consisted of translations or adaptations of English or French detective stories; the falling off in the quality of works of fiction is attributed partly to the increasing demand for short stories in the numerous vernacular magazines. Industrial activity, which was a prominent feature of the year, was fully reflected in current literature. Among the chief topics discussed in the press during the year were the Royal Proclamation on the 50th anniversary of the assumption of the government of India by the Crown, the reform of the councils, the judgments in important criminal trials, the nationalist movement and anarchism, the deportations, and the relations between police and public. The number of vernacular newspapers at the close of the year was 84, a decrease of six.

Eastern Bengal.

In Eastern Bengal political writings formed, as in 1907–8, the bulk of the literary work of the year. The number of newspapers rose from 43 to 53, and the number of books registered fell from 247 to 223. The tone of the papers became less violent after the introduction of the Newspapers (Incitement to Offences) Act; but their literary standard was very low, and unintelligent abuse of the British people and British goods continued to be their most popular theme.

Central Provinces and Berar.

The books published during the year were 122 in number, of which 41 were devoted to religious subjects. There were 20 newspapers and periodicals; none of these had any considerable circulation except the *Hindi Kesari*, an extremist paper which has now ceased to appear, and the *Marwari*, which treats chiefly of commercial and industrial matters.

Other Provinces.

There were no publications in Coorg, and only one, a newspaper, in the North-West Frontier Province.

# CHAPTER XV.

## LOCAL SELF-GOVERNMENT.

GENERAL. | DISTRICT AND LOCAL BOARDS.
MUNICIPALITIES. | PORT TRUSTS.

GENERAL.

### GENERAL.

Local self-government, municipal and rural, in its present form is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and to various provincial Acts passed about that time, which greatly altered the constitution, powers and functions of municipal bodies—especially by widely extending the elective system —and which still form the basis of the provincial systems in force. At the same time the resources and financial responsibility of municipalities were increased. Municipal committees now exist in most towns of any importance. In the rural districts local and district boards were established by Acts of 1883–5. The local boards are under the control of a general district board, or send delegates to a district council. The systems vary in different provinces, as a large discretion is left to the provincial governments. The elective principle has been adopted in varying degrees. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities and in cantonments. In the chief ports trustees have charge of harbour works, port approaches, and pilotage.

MUNICIPALITIES.

### MUNICIPALITIES.

(*For further details see Statistical Abstract for British India, Tables* 101 *to* 103.)

General.

The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province and of the three presidency capitals, Bombay, Calcutta, and Madras. In the municipalities as a whole about half of the members are elected by the townsfolk under legal rules; in every town some, and in a few minor towns all, of the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members. The number of Indian and non-official members, however, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or bye-laws can be enforced without similar sanction and full publication.

There were 717 municipalities at the end of 1908–9, containing within their limits nearly 17 million people, or 7 per cent. of the total population. Generally speaking, the income of municipalities is small. In 1908–9 their aggregate income amounted to £4,027,000, excluding loans, sales of securities, and other extraordinary receipts. About 40 per cent. of the total is provided by Calcutta, Bombay, Madras, and Rangoon. Loans are incurred for water supply and drainage schemes, the cost of which is too large to be defrayed from ordinary revenues. Borrowings are largely from Government. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yield over one-fifth of the total income of municipalities. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some parts a tax on professions and trades. The other sources of income include cattle-pound receipts, rents of municipal property, such as

markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education. MUNICIPALITIES.

The interest in municipal elections, and in municipal affairs generally, is not usually keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. In most provinces municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur. The tendency of local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance, whether at meetings for business or on benches for the decision of petty criminal cases.

The following table exhibits the constitution of the municipal committees in 1908–9:—

| | Number of Municipalities. | Total Number of Members. | By Qualification. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Indians. |
| *Presidency Towns, &c.:—* | | | | | | | | | |
| Calcutta | 1 | 50 | — | 25 | 25 | 9 | 42 | 26 | 25 |
| Bombay | 1 | 72 | — | 16 | 56 | 6 | 66 | 18 | 54 |
| Madras | 1 | 37 | 1 | 16 | 20 | 10 | 27 | 14 | 23 |
| Rangoon | 1 | 25 | — | 6 | 19 | 5 | 20 | 13 | 12 |
| *District Municipalities:—* | | | | | | | | | |
| Bengal | 128 | 1,750 | 138 | 711 | 901 | 261 | 1,489 | 252 | 1,498 |
| Bombay (including Sind) | 158 | 2,179 | 466 | 844 | 869 | 566 | 1,613 | 173 | 2,006 |
| Madras | 60 | 919 | 72 | 403 | 444 | 189 | 730 | 148 | 771 |
| United Provinces | 87 | 1,208 | 140 | 148 | 920 | 260 | 948 | 207 | 1,001 |
| Punjab | 111 | 1,268 | 233 | 432 | 603 | 262 | 1,006 | 108 | 1,160 |
| North-West Frontier Province | 9 | 149 | 45 | 104 | — | 45 | 104 | 22 | 127 |
| Central Provinces and Berar | 57 | 760 | 20 | 272 | 468 | 177 | 583 | 79 | 681 |
| Eastern Bengal and Assam | 50 | 656 | 68 | 259 | 329 | 140 | 516 | 72 | 584 |
| Burma | 43 | 540 | 167 | 310 | 63 | 189 | 351 | 144 | 396 |

BENGAL. Calcutta.

The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed—four by the Bengal Chamber of Commerce, four by the Calcutta Trades' Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of the chairman and 12 members, who are selected from among the commissioners. In spite of important reforms in the registration of voters which increased their number more than threefold, a lack of interest was shown in the elections, only 11 per cent. of the total electorate actually voting. Progress was made in 1908–9 with great schemes of water supply and drainage (referred to in Chapter XVI. under "Sanitation"). With the growth of prosperity the valuation of the city has increased by nearly 50 per cent. in ten years to £2,129,444, and the revenue shows great elasticity. Retrenchments were effected in establishment charges in 1908–9. The revenue amounted to £520,064, while the expenditure was £504,463. Of the income about three-fourths is derived from the consolidated rate, and about one-eighth from licences; of the expenditure more than one-third is for loan charges. The debt at the close of the year amounted to £2,840,000. The annual loan charges must not exceed one-tenth of the annual valuation. The interest and sinking fund charges in 1908–9 were £148,926. Byelaws relating to plumbers, theatres, house drainage, and cattle sheds were issued. Progress in the improvement of bustees was well maintained. The Sir Stuart Hogg market is being extended at a cost of £77,000. A scheme for clearing congested areas and making street improvements, to be spread over 20 years and to cost £5,500,000, has received general sanction, and a draft bill giving effect to the proposals has been prepared.

Interior of Bengal.

General elections were held in 37 out of the 128 municipalities. The percentage of voters varied greatly. The average attendance of members at the meetings was less satisfactory. The incidence of municipal taxation for the whole province averaged 2*s.* 0½*d.*, showing an increase of 1*d.* per head over that of 1907–8. The incidence varied between 13*s.* 4*d.* at Darjeeling and 5*d.* at Rambjibanpur. In 22 municipalities it was below 8*d.* There were revisions of assessments in 63 municipalities. That at Copossier-Chitpur yielded an increase in revenue of £3,632.

MUNICIPALITIES. The rate on holdings was in force in 61, and the tax on persons in 67, municipalities. The total revenue of the Bengal municipalities amounted to £338,637, and the ordinary expenditure to £321,965. Thirty-seven municipalities were in debt at the close of the year to a net amount of £259,300, more than half of which was on account of Howrah, which adjoins Calcutta.

United Provinces. There were 87 municipalities and 43 notified areas at the close of 1908–9. At present only in two municipalities are the chairmen non-officials, but in future non-official chairmen and vice-chairmen are to be installed wherever suitable persons are forthcoming and local circumstances permit. Polls were held in 49 municipalities, and 55 per cent. of the electors voted. Owing to the discovery of abuses, reforms in election procedure are under consideration. Board meetings were fewer last year, but the attendance was better. The income of the municipalities was £437,237, of which about £223,000 was derived from octroi duties. The incidence of taxation as a whole fell to about 2*s.* 0*d.* per head. The expenditure amounted to £470,860. During the year there was larger expenditure on education. In consequence of the report of the Special Committee on Municipal Taxation, published in June 1909, octroi is to be restricted, and, wherever possible, replaced by other sources of taxation.

Punjab. The powers of self-government provided in the municipal Acts were granted more freely in the Punjab than elsewhere. Owing, however, to the unsatisfactory working, lack of equity in assessing taxation, and expensive machinery of the smaller municipalities which have insignificant incomes, many municipalities have been converted into notified areas. At the end of 1908–9 there were 111 municipalities (a reduction of 25), besides 90 notified areas in which cheapness and simplicity of administration are the chief requisites. The system by which each religious community elects its own representatives has proved popular and successful. Except in the larger towns, elections excite very little interest, and nomination to a seat is said to be preferred to election. The work of the committees was generally satisfactory. The total income of the year amounted to £370,530, and the total expenditure to £371,188. Octroi accounts for 89 per cent. of the income from rates and taxes. The octroi receipts fell off as a result of widespread malaria, floods, and depressed trade. It is intended to adopt as far as possible the recommendations in the report of United Provinces Committee on Municipal Taxation regarding octroi (*see* above). In the municipalities that were converted into notified areas a house tax was generally substituted for octroi. The average incidence of taxation was 2*s.* 8*d.* per head.

North-West Frontier Province. In the Frontier Province there were nine municipalities and five notified areas, with an income of £39,200, of which two-thirds is derived from octroi duties. The expenditure was mainly on public health and safety. The elective system is not in force in this province, and members are nominated for three years.

BURMA. Rangoon. The ordinary revenue of the Rangoon municipality decreased to £225,726, while the expenditure increased to £240,959. There was larger expenditure owing to the reorganisation of establishment, the introduction of electric lighting, loan services, &c. Strict supervision of the milk supply has been instituted. A scheme has been framed to induce private enterprise to provide sanitary barracks for the large floating coolie population. The incidence per head of direct taxation was 14*s.* 7*d.* The outstanding loans at the end of the year amounted to £993,967, including the reclamation works loans of £182,400.

Interior of Burma. There are 43 municipalities and 16 notified areas. Plague had again a serious effect on the finances, and expenditure in other directions had to be postponed. A recurring contribution of £20,000 is granted from imperial revenues to meet special plague expenditure in the province. Municipalities have been generally administered with efficiency, and most of the members take an interest in the affairs of the towns. Specially good work has been done by the Moulmein Committee. The average incidence of taxation rose to 2*s.* 9*d.* per head of population. The aggregate income, excluding debt heads, was £244,756, of which £94,283 came from rates and taxes, and £90,683 from markets and slaughter-houses. The municipal incomes are mostly small.

Central Provinces and Berar. In the Central Provinces and Berar 57 towns had municipal committees in 1908–9, and there were six notified areas. The interest in municipal elections was, as usual, limited. There was a further extension of the elective principle. In the larger towns the interest of members in their civic duties has increased, but in the smaller

towns, especially in Berar, it is difficult to find men suitable to administer municipal affairs. Under these conditions it has not been possible to adopt in Berar the policy which obtains generally in the Central Provinces of placing the chairmanship in non-official hands. The total income of the municipalities was £144,216, over two-thirds of which was derived from rates and taxes. The expenditure amounted to £153,694. The average incidence of taxation was about 2*s*. 3*d*. per head. Measures are being taken to render the levy of octroi more uniform in the Central Provinces. Octroi is not levied in Berar. Of the 44 municipalities in the Central Provinces proper, no less than 16 subsisted during 1908–9 on revenues smaller—in most cases considerably smaller—than £700. In Berar municipal taxation is especially low, the incidence being only 1*s*. 4*d*. per head. The total indebtedness of the municipalities was £82,045, half of which was owed by Nagpur and Jubbulpore. The financial position of the borrowing municipalities is sound. MUNICIPALITIES.

The returns of attendance at meetings indicated a decline in interest in municipal affairs. Aid from provincial revenues is to be withheld from inefficient municipal bodies. Muhammadans are still insufficiently represented in the towns of Eastern Bengal. The total income of the 50 municipalities of Eastern Bengal and Assam in 1908–9 was £94,720, and the average incidence of taxation was 2*s*. 0*d*. per head. The expenditure amounted to £102,094. The net indebtedness at the end of the year was £23,786, the greater part of which is on account of Dacca and Narayanganj. Eastern Bengal and Assam.

The number of members in the Madras Corporation is 36 (besides the chairman) of whom 20 are elected and the remainder appointed by Government and by various commercial bodies. The income in 1908–9, excluding loans and advances, amounted to £152,603, and the expenditure to £153,768. The average incidence of taxation was about 4*s*. 2*d*. per head. The principal taxes are one of 10 per cent. on the annual value of buildings and lands, a water and drainage tax of 6½ per cent. levied on the same basis, and a lighting tax of 1¼ per cent., besides taxes on animals and vehicles, &c. The outstanding debt of the municipality at the end of the year was £483,000, against which must be set a sinking fund of £154,000. MADRAS. Madras City.

The number of municipal councils in the interior of Madras was 60, in 58 of which the elective system was in force. Of 193 seats filled by election in 1908–9 only 98 were contested, and 58 per cent. of the registered voters polled. Four councils consisted entirely of Indian members. The income increased to £292,656, and the average incidence of taxation was nearly 1*s*. 9*d*. per head. The total expenditure was £293,490. The outstanding debts at the end of the year amounted to £165,465, against which there was a sinking fund of £11,283. A fair standard of efficiency was maintained in some municipalities, but in eight (including Tanjore and Cuddapah) the administration left much to be desired. Interior of Madras.

Bombay City is administered by a corporation of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The ordinary income in 1908–9 was £662,909 and the expenditure £685,357. In spite of a reduction in the general and water rates there was a further large increase of receipts, resulting from the general expansion of the city and the rise in values of rateable properties. There was, however, a deficit in the year's working owing to expenditure on improvements, &c. It is now realised that increased taxation is the only alternative to curtailment of the expenditure. The average incidence of taxation per head was 11*s*. 11*d*. At the end of the year the outstanding debt was £3,468,196, and the invested sinking fund £568,746. The financial position of the municipality is assured beyond question. The expenditure on plague preventive measures from the outbreak of the epidemic in 1896, to the end of March 1909, has amounted to £468,693, of which £96,700 was received from the Government, and the remainder met partly from loans and partly from municipal revenues. BOMBAY. Bombay City.

The capital expenditure of the Bombay City Improvement Trust, which is engaged in reclaiming land, clearing slum areas, laying out new streets, erecting chawls, &c., amounted to £364,000. A further loan of £200,000 was raised in 1908–9, the amount of the loans being thus brought up to £2,100,000. The year's revenue, derived from the municipal contribution and receipts from investments, rents and other property, amounted to £104,000, and the expenditure, exclusive of capital charges, to £112,500.

The municipalities in the interior of Bombay and Sind numbered 138, besides 10 notified areas. During the year Government relaxed the official control over these bodies by empowering 87 municipalities not specially excepted to select Interior of Bombay.

MUNICIPALITIES.

non-official presidents and by conceding to five city municipalities the privilege of electing two-thirds of the number of their councillors on their agreeing to appoint a Government servant as chief officer of the executive. It is hoped that these changes will stimulate a further interest in municipal affairs. On the whole, municipal administration in 1908–9, where not impeded by faction, showed evidence of a due sense of public responsibility. The aggregate income rose to £474,737, and the aggregate expenditure to £448,402.

DISTRICT BOARDS.

## DISTRICT AND LOCAL BOARDS.

*(For further details see Statistical Abstract for British India, Table* 104.)

General.

In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district there is a board subordinate to which are two or more local boards. The boards contain a varying proportion of elected members in all provinces except Madras, where the elective system is only applied to members of district boards. Elected members form a large proportion of the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of district boards is 194, and of local boards 515. There are no boards in Burma. The following table shows the general constitution of the boards in each province, the figures in italics relating to local boards, the others to district boards :—

| Province. | Number of Boards. | Total Number of Members. | By Appointment. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Indians. |
| Madras | 23 | 715 | 109 | 276 | 330 | 288 | 427 | 132 | 583 |
| | *32** | *1,185* | *85* | *1,100* | — | *352* | *833* | *80* | *1,105* |
| Bombay | 25 | 3,645 | 25 | 1,996 | 1,624 | 773 | 2,872 | 216 | 3,343 |
| | *212* | | | | | | | | |
| Bengal | 29 | 597 | 165 | 183 | 249 | 202 | 395 | 191 | 406 |
| | *78** | *948* | *61* | *628* | *259* | *129* | *819* | *89* | *859* |
| United Provinces | 48 | 904 | 1 | 256 | 647 | 246 | 658 | 94 | 810 |
| Punjab | 29 | 1,115 | 245 | 487 | 383 | 260 | 855 | 77 | 1,038 |
| | *16* | *302* | *16* | *99* | *187* | *16* | *286* | *3* | *299* |
| N.-W. Frontier Province | 5 | 216 | 49 | 167 | — | 49 | 167 | 26 | 190 |
| Central Provinces and Berar. | 21 | 465 | 5 | 119 | 341 | 74 | 391 | 20 | 445 |
| | *75* | *1,200* | *13* | *313* | *874* | *123* | *1,077* | *7* | *1,193* |
| Eastern Bengal and Assam. | 14 | 283 | 74 | 105 | 104 | 103 | 180 | 53 | 230 |
| | *52** | *682* | *93* | *285* | *294* | *144* | *538* | *145* | *537* |

* Besides 386 union committees or *panchayats* (with 3,670 members, of whom only 43 are Europeans) in Madras, 51 in Bengal, and 9 in Eastern Bengal and Assam.

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. Up to 31st March 1908 the proceeds of these rates were included in the general revenues, and assignments from them were made to the boards. From April 1908 the accounts of the boards have been excluded from the general provincial accounts, and their funds treated independently in the same way as municipal funds. The new system remedies certain practical inconveniences and gives the boards freedom of reappropriation. The Government of India now make a grant-in-aid to the funds of all boards equal approximately to one-fourth of their income from rates or cesses levied on land. The chief object is to enable the boards to provide improved roads and other local needs. The boards have also other sources of income, such as cattle pound receipts (except in Madras), educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their aggregate income (excluding debt items) in 1908–9 was £3,190,000. The expenditure of the boards is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

Bengal.

In Bengal, the attendance at the district, and still more at the local board, meetings, was unsatisfactory, though there was absence of friction in working. Little interest was shown in elections. There were 51 union committees entrusted with minor duties and having an aggregate income of only £1,145. An amendment of the Bengal Local Self-Government Act of 1885 was effected in 1908, and changes were made with regard to appointment, powers, administration, financial powers, &c. The

ordinary income of the district boards was £420,350. The receipts from provincial rates, £232,561, were larger, while those from civil works declined to £79,912. The expenditure, excluding debt, was £469,067, of which £85,652 was spent on education and £292,226 on civil works, chiefly roads and bridges. Scarcity diminished the incomes and increased the expenditure of the boards affected. Four light railways constructed under the guarantee of district boards continued to work satisfactorily, and some extensions were made. Considerable progress was again made with the construction of railway feeder roads and bridges. DISTRICT BOARDS.

During 1908–9 there were marked signs in many districts of a growing interest in local affairs on the part of non-official members of district boards, and this is being fostered by the policy of extending their powers and responsibilites. The change by which district board funds became, from 1st April 1908, excluded local funds, increases the freedom of the boards in dealing with the money at their disposal and simplifies local accounts. The expenditure of district boards has rapidly increased during recent years, and has been largely met from provincial contributions which amounted, in 1908–9, to £157,000. The time has come for greater reliance on local resources. The total income last year increased to £540,730, including provincial grants. The expenditure amounted to £533,885. There were increases under education and civil works. Medical charges increased owing to larger expenditure resulting from the widespread epidemic of malarial fever. United Provinces.

A lack of interest is still shown in elections to district boards. Few elections elicit contests. In the working of the boards, too, members display little enthusiasm. The Local Government has ordered that a meeting of each district or local board should be held at least once in two months. The ordinary income of the boards for 1908–9 came to £326,357, of which the chief item was £170,000 from provincial rates. The expenditure was £356,900, of which the chief items were civil works £143,000, education £81,500, and medical charges £42,100. Punjab.

There is no elective system in this province. The year's income of the boards was £23,650 and their expenditure £22,196. Most of the income was derived from provincial rates. Of the expenditure about 24 per cent. was on education. The members of the boards have little sense of their responsibilities. North-West Frontier Province.

The year was one of steady progress, especially in promoting education and works of public utility. Any further extension of activities is hampered by the limited sources of income. The attendance of members of the boards at the meetings perceptibly improved. This is ascribed to the enhanced powers recently entrusted to them. The ordinary income of the district funds amounted to £150,624, excluding debt heads, while the expenditure was £200,842. The chief source of income, as in other provinces, is the provincial rates, but receipts from cattle pounds constitute an exceptionally large proportion of the total. The bulk of the expenditure was on civil works, including roads and schools and other buildings, and on education. Central Provinces and Berar.

In Eastern Bengal there was a distinct improvement in the attendance of members of boards, but elections were not very satisfactory. In Assam there were 19 local boards, constituted under executive rules. The latter boards generally resemble district boards in their functions and responsibilities, and a special feature of their membership is the large proportion of Europeans, who represent the planting community. In Eastern Bengal the Muhammadan community, which includes two-thirds of the population, was more adequately represented on the boards in 1908–9. Of the income of the boards, £326,373, nearly one-half accrued from provincial rates, and over one-third from Government contributions for education, roads, &c. Their expenditure amounted to £347,508, of which £97,892 was devoted to education and £199,586 to civil works. Eastern Bengal and Assam.

There were in Madras 23 district boards, 82 taluk boards, and 386 village unions. The taluk or sub-divisional boards are not elective, the members being appointed by the Government, but some of them elect their vice-presidents. The village union *panchayats* or councils have each not less than five members; they deal chiefly with sanitation, and the making and repair of roads, and in some cases they have the management of choultries, markets, and other local institutions entrusted to them by the taluk boards. On the whole the working of the local bodies was satisfactory. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £888,879, and the expenditure rose to £864,554. The chief source of income is the land cess, which is levied at rates varying from one to two annas per rupee of the land revenue assessment, Madras.

DISTRICT BOARDS.

and yielded £372,360. Railway cesses amounted to £48,412. The income included also grants from provincial revenues amounting to £190,637, chiefly for roads and bridges and for education. There was larger expenditure on public works, sanitation, and education. The Tanjore and Kistna District Boards railways yielded net profits of 5·8 and 7·4 per cent. respectively on the capital outlay.

Bombay.

The average attendance of members at meetings of the boards showed a decided improvement. New boards were constituted in three districts. The income of all boards, in 1908–9, excluding debt heads, was £431,856, a rise, as compared with 1907–8, due to the recovery of past arrears, to more liberal Government grants, &c. The total expenditure of the boards rose to £445,671, most of the increase being for water supply and other civil works and education. Of the total expenditure, 32 per cent. was for education, and 56 per cent. for roads, schoolhouses and other buildings, water supply, and other works.

Burma.

There are no local boards in Burma. Their place is taken by the district funds under the control of Government officers. These numbered 36, and had an income of £237,364 and an expenditure of £238,687 in 1908–9. Those in Lower Burma, known as "District Cess Funds," are the largest, as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £198,285 of the expenditure, of which about £26,000 was on education and nearly £120,000 on public works. The expenditure from district funds in Upper Burma was chiefly on public works.

PORT TRUSTS.

## PORT TRUSTS.

(*For further details, see Statistical Abstract for British India, Table* 178.)

General.

The administration of the larger ports is placed by various Acts in the hands of Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. They have wide powers, but are more subject than municipal bodies to Government control. Members of these Port Trusts, which include both Europeans and Indians, are for the most part appointed by the Local Governments, and are largely representative of the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks for the convenience of traders and shipping. The chief ports, in which is carried on by far the largest proportion of the trade of India, are alone dealt with here. There are smaller ports, especially in Madras and Burma, where sums are raised yearly for expenditure on improvements. For the trade of the principal ports *see* page 64.

Calcutta.

The receipts of the Port Trust, in spite of trade depression, increased by 10 per cent. to £801,100 in 1908–9, the highest figure on record, while the expenditure was £799,000. Receipts have doubled in the last 10 years owing to the enormous expansion in the trade of the port, although considerable reductions have from time to time been made in the charges on goods. The expenditure upon capital works amounted to £401,000. The more important works completed or in progress were the extension of docks and jetties, the erection of warehouses, the provision of four ferry steamers, and the reclamation of low-lying land. The capital debt of the Trust on 31st March 1909 was £4,513,000, of which about £1,931,000 represents Government loans, and the rest mainly debenture loans. The Commissioners during the year raised their first sterling loan, amounting to £500,000. Against this total debt may be set the value of properties, £5,929,000, besides valuable foreshore lands, sinking funds amounting to £513,000, and Revenue, Reserve, and other Funds of £284,000. Lands and buildings and the railway are a growing source of income. Increased trade in coal, Java sugar, and Burma rice has greatly added to the receipts. The provision of ferry steamers has met a great public need. In connection with the scheme for the extension of the Kidderpore Docks and the general improvement of the port, large areas of land are being acquired.

Bombay.

Notwithstanding the depression in the export business, the receipts of the Port Trust were higher than in any year except 1908–9. Their income amounted to £508,000, and the expenditure to £454,000. The trustees continued the temporary rebate on certain port dues and pilotage charges, initiated in 1907, which amounted to £48,000; nevertheless, there was a surplus of £5,400 on the year's working,

and the Reserve Fund was raised to £373,000. The capital expenditure amounted to £596,300, including £295,000 spent on the Alexandra Dock works, and £225,000 on the Mazagon–Sewri reclamation. A debenture loan of £500,000 was issued. The debt of the Trust amounted at the end of the year to £5,239,000, of which over £2,000,000 is due to Government, while the remainder consists of foreshore securities and debenture loans. The cost price of the properties vested in the Trust was £5,446,000, and various depreciation, reserve, and sinking funds amounted in the aggregate to £733,000. Works for the improvement of the harbour and the excavation of the new docks made good progress. Government has sanctioned an estimated expenditure of £872,000 for the Mazagon–Sewri reclamation scheme, the area involved being 518 acres. PORT TRUSTS.

Owing to the falling off in the export trade, the year 1908–9 was not very satisfactory for the Karachi Port Trust. The revenue receipts declined to £170,000, while the expenditure was £163,000. The capital expenditure reached £206,000. The total liabilities of the Trust at the end of the year stood at £753,000, of which £83,000 is due to Government. Considerable progress was made in the various schemes for the improvement of the port, and important additions were made to the wharfage. Karachi.

In 1908–9, owing to the great expansion of inland trade, the ordinary revenue increased by £32,500 to £192,000, while the revenue expenditure was £195,000, leaving a small deficit on the year's working. A sterling loan of £500,000 was raised. The capital expenditure of the year was £450,000, and the total debt amounted to £1,381,000. Substantial progress was made with the construction of up-to-date extensions of wharves in connection with the scheme for the new port works, which was sanctioned in 1901 and is now nearly completed. Since the commencement of the works, £613,000 has been expended out of sanctioned estimates of £695,750. The project for improving the channel across the Hastings shoal was successfully completed. The condition of the Rangoon river has given rise to grave anxiety for some time past, and preliminary operations were undertaken for training the river. Rangoon.

The year 1908–9 was prosperous, and the receipts of the Madras Port Trust increased to £77,000. The expenditure was £50,000. Progress was made in improving the harbour and in furnishing better facilities for handling cargo. The harbour is being provided with a new north sheltering arm and a new entrance, and new berths and moorings. The capital outlay on extensions was £70,000. The debt outstanding was £438,000. Madras.

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY

# CHAPTER XVI.

## CONDITION OF THE PEOPLE.


VITAL STATISTICS.
PLAGUE.
SANITATION.
HOSPITALS, DISPENSARIES, AND ASYLUMS.
EMIGRATION AND MIGRATION.
PRICES.
WAGES.
FAMINE OR SCARCITY.
GENERAL REMARKS.


VITAL STATISTICS.

### VITAL STATISTICS.

General population.

*(Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables* 103–4 *and* 192 *to* 199.)

Registration.

As the date of the census of 1901 recedes, the birth and death rates calculated upon the census returns necessarily become unduly high. Although improvement in registration is being steadily effected, there are still serious defects in some areas. The facts are nearly everywhere collected by an illiterate agency (usually by village watchmen in rural areas), and accurate figures, especially of the causes of death, are unobtainable. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the returns of the last three censuses show that the registered birth and death rates are understated, and, as registration improves, the registered rates must tend to approximate to the calculated rates. An increase in the registered death-rates cannot, therefore, be regarded as proving the impoverishment of the masses. The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents, but to some extent it is only apparent, being calculated on imperfect returns of births.

Birth-rates and death-rates.

The population of the areas in which births and deaths were registered was 226,409,600 according to the census of 1901, and the number of births registered in 1908 was 8,554,427. The provincial rates are given in the marginal table. The calculated birth-rate in 1908 was 37·78 per mille, compared with 37·65 in 1907 and 39·23 the average of the preceding five years. In the Central Provinces the birth-rate per mille of population was again exceptionally high, while a very low rate was again recorded in Madras. In most provinces the birth-rates exceeded the death-rates, the most considerable excesses being 14·72 per mille in the Central Provinces, 10·40 in Eastern Bengal, and 8·57 in Bombay. In the United Provinces

| Province. | Birth-rates. | | Death-rates. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1907. | | | 1908. | | |
| | 1907. | 1908. | Rural. | Urban. | Total. | Rural. | Urban. | Total. |
| Bengal - | 37·7 | 36·1 | 37·8 | 36·2 | 37·7 | 39·1 | 31·2 | 38·6 |
| Eastern Bengal and Assam. | 37·0 | 41·1 | 29·5 | 22·7 | 29·3 | 30·1 | 22·2 | 30·7 |
| United Provinces - | 41·2 | 37·5 | 42·6 | 55·1 | 43·5 | 53·0 | 49·2 | 52·7 |
| Punjab - - - | 40·8 | 41·8 | 62·9 | 54·7 | 62·1 | 50·2 | 55·6 | 50·7 |
| North-West Frontier Province. | 32·5 | 37·3 | 35·0 | 36·0 | 35·1 | 35·9 | 35·6 | 35·8 |
| Central Provinces and Berar. | 52·5 | 52·8 | 41·3 | 45·1 | 41·7 | 38·2 | 37·7 | 38·1 |
| Madras - - | 30·8 | 32·4 | 23·7 | 28·5 | 24·3 | 25·3 | 32·3 | 26·2 |
| Coorg - - - | 23·8 | 24·2 | 34·3 | 44·0 | 35·2 | 33·5 | 50·3 | 34·9 |
| Bombay - - | 33·0 | 35·7 | 31·5 | 38·2 | 32·8 | 25·1 | 37·5 | 27·1 |
| Burma { Lower - | 32·7 | 34·1 | 24·6 | 42·2 | 26·8 | 25·9 | 42·6 | 28·1 |
| Burma { Upper - | 33·1 | 36·3 | 24·4 | 39·7 | 26·1 | 27·2 | 38·8 | 28·5 |
| Ajmere-Merwara - | 31·2 | 42·5 | 25·5 | 40·8 | 29·6 | 35·3 | 52·6 | 40·0 |

the excess of the death-rate over the birth-rate was 15·27 per 1,000. The percentage of male to female births ranged from 123·6 in the North West Frontier Province to 104·0 in the Central Provinces and Berar. VITAL STATISTICS.

The number of deaths registered during 1908 was 8,653,007, compared with 8,399,623 in 1907, while the death-rate was 38·21 per thousand, or 1·03 higher than in 1907, and 4·25 above the quinquennial mean. The rise in the death-rate was most marked in the more populous provinces of Northern India, and especially in the United Provinces, where the rate increased from 43·5 to 52·7 per mille. The Punjab rate, though lower than in 1907, was yet extremely high, 50·7 per mille. The lowest death-rate was again in Madras.

The greatest mortality occurred in November, while the lowest was July. Infantile mortality was highest in the United Provinces and the Punjab, and lowest in the North West Frontier Province and Madras.

The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150,000 in 1901 :—

| City. | 1907. | 1908. | City. | 1907. | 1908. | City. | 1907. | 1908. |
|---|---|---|---|---|---|---|---|---|
| Calcutta - - | 37·7 | 32·6 | Benares* - | 60·7 | 53·1 | Ahmedabad* - | 57·2 | 56·5 |
| Bombay - | 39·9 | 39·5 | Delhi - - | 65·2 | 60·0 | Mandalay - | 45·6 | 40·7 |
| Madras - | 40·8 | 44·1 | Lahore - | 60·4 | 56·4 | Allahabad* - | 36·7 | 28·5 |
| Lucknow* - | 72·8 | 55·3 | Cawnpore* - | 55·1 | 63·1 | Amritsar - | 50·0 | 94·7 |
| Rangoon - | 45·0 | 41·6 | Agra* - | 28·2 | 35·8 | Poona* - - | 41·9 | 41·4 |

* Excluding cantonment.

There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy, widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The marginal table shows the number of deaths, and the death-rates per 1,000 from each of the principal diseases recorded during the three years from 1906 to 1908. With regard to special diseases, no province escaped the visitation of cholera, which was very prevalent in Bengal, Eastern Bengal and Assam, the United Provinces and Madras, where the death-rates were 5·32, 1·99, 1·75, and 3·9 per mille respectively. Small-pox was more widespread than in 1907, especially in Northern India, and the death-rates were as high as 1·42 and 1·26 per 1,000 in the Punjab and United Provinces respectively. Plague, the mortality from which was much smaller, forms the subject of a separate section. When reference is made to fever in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under the heading. Owing to the severe epidemic of malarial fever in the autumn, the fever death-rates in the United Provinces (41·31) and the Punjab (34·66) were exceptionally high. Chief diseases.

| Years. | Cholera. | Small-pox. | Fevers. | Dysentery and Diarrhœa. | Plague. | Respiratory Diseases. | All causes. |
|---|---|---|---|---|---|---|---|
| 1906 | 690,519 | 109,583 | 4,452,842 | 298,117 | 300,355 | 201,307 | 7,852,330 |
| | 3·05 | 0·48 | 19·69 | 1·32 | 1·33 | 1·00 | 34·73 |
| 1907 | 408,102 | 103,988 | 4,464,881 | 282,191 | 1,166,223 | 226,419 | 8,399,623 |
| | 1·81 | 0·46 | 19·76 | 1·25 | 5·16 | 1·00 | 37·18 |
| 1908 | 591,725 | 170,694 | 5,424,372 | 285,921 | 113,888 | 227,817 | 8,653,007 |
| | 2·61 | 0·75 | 23·96 | 1·26 | 0·50 | 1·01 | 38·21 |

In October 1909 a malaria conference was held at Simla which recommended systematic investigation into the distribution of malaria, the epidemiology and endemiology of malaria, and the physiological and therapeutical action of quinine and other remedies by means of local organisations working under a Central Scientific Committee. The Conference suggested practical measures for the extirpation of mosquitoes and for quinine treatment and prophylaxis. It also recommended measures for instructing the people on the subject of malaria. Malaria Conference.

The total number of vaccinations performed among the civil population during 1908–9 was 9,096,362, being a decrease of 73,511 on the previous year's work. Of primary vaccinations 97·5 per cent., and of re-vaccinations 74·4 per cent., were successful, about 36 per mille of the population being successfully vaccinated. The number of infants successfully vaccinated was 43·2 per cent. of the number born. Vaccination.

PLAGUE.

## PLAGUE.

The present epidemic of plague in India first broke out at Bombay in August 1896, and, as the marginal table shows, it has been responsible for a heavy rate of mortality since that date. In 1907 the deaths from plague attained the highest total yet recorded, viz., 1,315,892 for India as a whole, the number in British India alone being 1,166,223, or 5·16 per mille. In 1908 the mortality declined enormously, falling to 156,480, the lowest total since 1900. The fall in the Punjab was from 30·3 to 1·5 per 1,000, in the United Provinces from 6·9 to 0·5, and in Bombay from 5·1 to 1·5. The course of the epidemic differed from that of the previous four years in that its maximum prevalence was in March instead of in April. In 1909 there was once more a relatively low mortality, the preliminary figures showing only 174,874 deaths, or fewer than in any year since 1900, excepting 1908. The mortality again reached its height in March. After reaching its lowest level in July, the epidemic increased steadily until October, when a decline again occurred.

| Plague Deaths. | |
|---|---|
| 1896 - 1897 - | 57,543 |
| 1898 - | 116,285 |
| 1899 - | 139,009 |
| 1900 - | 92,807 |
| 1901 - | 282,027 |
| 1902 - | 576,365 |
| 1903 - | 883,076 |
| 1904 - | 1,143,993 |
| 1905 - | 1,069,140 |
| 1906 - | 356,721 |
| 1907 - | 1,315,892 |
| 1908 - | 156,480 |
| 1909 - | 174,874* |

* Preliminary figures.

Plague is so local in its visitations that all general and unanalysed statistics are likely to prove misleading. Many parts of India have been almost entirely free from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. The mortality in Eastern Bengal and Assam has been at no time appreciable, while in the Madras Presidency and in Burma the epidemic has never reached serious dimensions. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. In some parts of the Punjab the mortality in 1907 was so severe as to disorganise the labour market and to affect the level of wages.

The efforts of Government to discover and apply the most effective methods of remedial action have not been relaxed. The Advisory Committee on Plague Investigation in England and the Plague Commission in India, whose constitution has been described in former issues of this Report, have continued their investigations, which have already led to most important results. The main facts in regard to the mode of propagation of an epidemic and the life history of the plague bacillus have been ascertained, and rational methods of attack have thus been made possible. A popular summary of the principal conclusions arrived at was given in "The Etiology and Epidemiology of Plague" (price 5*d.*), published early in 1908. It is now generally agreed: (1) That bubonic plague is spread by infected rats; (2) that the vehicle of contagion between rat and rat and between rat and man is the rat-flea; and (3) that the life of the plague germ in the soil, the floors and walls of houses, and the like, is of short duration.

In the light of the knowledge and experience now acquired it is possible to deal satisfactorily with the disease when effective control can be established over the sanitary conditions; and in the case of the native army and in limited areas such as jails there has been remarkable success. But attempts to establish such control over large areas would involve too great an interference with the habits, prejudices, and sentiments of the people, and the application of measures of proved utility must depend upon the particular circumstances of each locality and upon the character of its inhabitants. In the face of great practical obstacles, three principal measures for combating plague are now adopted:—

(1) The temporary evacuation of quarters in which plague is prevalent. This has proved to be the most effective way of removing man from contact with infected rat-fleas. Government is ready to supply money and material to provide temporary dwellings and to alleviate the discomfort and distress which must accompany evacuation of quarters, a matter, of course, in which no pressure can be exerted, and in regard to which the wishes and even the prejudices of the people must be consulted.

(2) Inoculation with the prophylactic fluid. The great efficacy of this remedy has been placed beyond doubt; its use has spread rapidly, and the popular prejudice against it is beginning to disappear.

(3) The systematic destruction of rats, the diminution of the food supply to which they have access, and, in the course of time, such improvement in the structure of houses as shall render them reasonably rat-proof.

## SANITATION.

SANITATION.

Increasing attention has been paid in recent years to questions of sanitary reform. Proposals for reorganising and developing the Sanitary Department by appointing medical officers of health and sanitary inspectors are under consideration. The following paragraphs give some account of the chief sanitary works undertaken in the various provinces during 1908. General.

In Calcutta steady progress was made towards carrying out great projects of water-supply and drainage, which are of vital importance to the health and comfort of the citizens. The water-supply is being doubled and the whole system of distribution reconstructed, so that the legal requirement of a continuous supply of filtered water at a pressure of 40 feet may be complied with. The principal feature of the scheme is a great elevated reservoir at Tallah, to contain nine million gallons, into which all the water will be pumped and from which it will be distributed by gravitation. The reservoir was begun in 1908. The total estimated cost is £461,000. The suburban drainage scheme has been completed, while the most difficult part of the drainage scheme in the Fringe Area, estimated to cost £200,000, has been carried out. Bengal.

A scheme for the improvement of the congested areas of Calcutta, to be carried out by a Board of Trustees, has been drawn up, and a Bill has been drafted for carrying it out. The expenditure on street improvements and attendant measures is estimated at about £5,500,000 in the course of some twenty years. A portion of this large sum will be recovered in rent from the lands acquired, and the balance will be provided partly from a municipal contribution, partly from certain special taxes, and partly from Government grants.

The 127 municipalities in Bengal (excluding Calcutta) spent about 40 per cent. of their income on sanitation. Sanitary progress is slow, chiefly owing to the lack of funds, which must, for the most part, be raised locally. Much attention was paid to the working of septic tanks, especially those installed by mills on the banks of the Hooghly, and an inspector was appointed to ensure their efficient working. Schemes of water-supply were in hand at Puri, Monghyr, Gaya, and elsewhere. Drainage schemes were in progress in several important municipalities. Work was commenced on a further portion of the comprehensive Howrah drainage scheme, and the drainage scheme at Tittaghar was finished. The expenditure under the head of conservancy is steadily rising in almost all municipalities. Night-soil is now properly trenched, and trenching grounds are in many cases cultivated at a profit. Sanction was given to a scheme for the drainage of a large area near Magrahat at an estimated cost of £134,000, in order to improve the sanitary condition of a tract 290 square miles in extent, Government contributing about £33,000.

In the United Provinces a record sum, amounting to about 54 per cent. of their income, was expended by municipalities on conservancy, water-supply, and drainage. Improvements in drainage and the opening up of congested areas are now the chief needs. Improvements were effected in the Benares water-supply, and schemes were under consideration for Cawnpore, Agra, and Allahabad. The results of analysis of drinking-water were, on the whole, satisfactory. A large drainage project for Moradabad was approved. A large number of drainage schemes was in progress. A sanitary conference which was held at Naini Tal in September 1908, to consider questions of public health in urban and rural areas, put forward some valuable suggestions. United Provinces.

About 48 per cent. of the income of Punjab municipalities was spent on sanitation in 1908. The intramural drainage works at Delhi were completed during the year, and the suburban drainage scheme, estimated to cost £25,250, was put in hand. Drainage works were in progress at Amritsar and elsewhere. The Ludhiana and Lahore waterworks were nearly completed. In rural areas sanitation makes little advance, although the District Boards offer rewards for village sanitation. Punjab.

A great advance in sanitation has been made by the cities of Peshawar and Dera Ismail Khan, which have appointed surgeons as health officers out of special grants placed at their disposal for sanitary improvements. North-West Frontier Province.

In Rangoon a loan was raised for a new pumping station at Yegu and connected works, and contracts for machinery and plant and buildings were given out. Land reclamation in Lanmadaw and Theinbyu was completed. A revised scheme for further reclamation work, estimated to cost about £700,000, was drawn up. Burma.

SANITATION. The Burma municipalities (exclusive of Rangoon) spent less than 39 per cent. of their income on sanitation, plague measures having left only a small amount available. Sanitation in Burma is in a very backward condition, and there is hardly a town or district in which sanitary reform is not a pressing need. At Akyab work on the gravitation water supply scheme approached completion. Water-supply schemes were under consideration for Mandalay and other towns. Experiments were made in several towns with cheap refuse incinerators. The Local Government contributed about £3,500 to Mandalay for re-grading the channel of the Shwetachaung Canal and £3,300 each to Mandalay and Prome for improving congested areas.

Proposals for improving the sanitary service were under consideration.

Central Provinces and Berar. The municipalities spent nearly 60 per cent. of their income on sanitation. The important scheme for extending the water supply of Jubbulpore at an estimated cost of £21,500 made good progress in 1908. Grants were made for the opening up of congested areas in Raipur and Hoshangabad, and also for the acquisition of land for plague camps and miscellaneous sanitary improvements in Nagpur. A sanitary engineer is preparing or advising on drainage schemes for various towns, but sufficient money is not yet available for their execution. Village sites and water supplies were improved under the direction of the Sanitary Board.

Eastern Bengal and Assam. The expenditure on sanitation amounted to about 48 per cent. of the income of the municipalities. Schemes for extending the water supply and improving the surface drainage of Dacca were under consideration, while the conservancy reforms were practically completed. At Chittagong a project for improving the water supply is in hand. A large scheme of urban sanitation is in contemplation. A grant of about £4,000 was made for improving the water supplies in rural areas.

Proposals for improving the sanitary service were under consideration.

Madras. A special engineer from England was engaged on the new water-supply and drainage programme for Madras city, and active progress was made with the water-works section. The lack of proper drainage in a large part of the city and a deficient water supply are the most serious sanitary defects. Definite steps were taken in 1908 to open up insanitary congested areas. Good work continued to be done in drainage or in filling up disused tanks, wells, &c.

Sanitary progress in mofussil municipalities is slow, owing in some cases to want of money, in others to lack of interest and capacity for management on the part of some of the councils. During the year waterworks were under construction at Salem, Berhampur, Bezwada, and elsewhere. The Sanitary Board supervised many water-supply and drainage schemes, projects for opening up congested areas, the sinking and repair of wells, &c.

Bombay. The water-supply and drainage works in Bombay city were satisfactorily maintained. A large area of land was acquired by the Bombay Improvement Trust. Several improvement schemes for transforming insanitary areas were advanced, and chawls capable of housing nearly 14,600 people were provided or under construction.

Sanitary progress in towns is delayed by lack of funds, and in the rural districts by general indifference. At Pandharpur, an important place of pilgrimage, the extensive drainage scheme was in progress, and a scheme for the improvement of the water supply was sanctioned. Progress was made with waterworks and drainage at Ahmedabad and Karachi. Water-supply projects were prepared for Nasik, Ahmednagar, Hyderabad, Bijapur, Dharwar, Hubli, Broach, and other towns.

Vessels for the Red Sea pilgrim traffic were cleansed and freed from rats under the direction of the Bombay Port Health Officer. The out-going pilgrims, who numbered 16,097, were medically inspected and their clothing and bedding thoroughly disinfected before embarkation.

## HOSPITALS, DISPENSARIES, AND ASYLUMS.

Hospitals and Dispensaries. The civil hospitals and dispensaries in India, which numbered 2,593 in 1908, against 2,514 in 1907, treated 443,909 indoor and 26,631,945 outdoor patients during the year. The great bulk of their income is derived from government and local and municipal funds, and their total expenditure in 1908 was £812,700. In addition there is a large number of special police and other medical institutions, as well as many private institutions which are not State-aided. These numbered 1,476, and provided treatment for 142,343 indoor and 6,507,014 outdoor patients. A satisfactory feature is the increased popularity of the dispensaries among women and children. The United Provinces had the largest number of indoor patients, followed by Bengal and Madras.

Madras had by far the largest number of outdoor patients. The principal diseases treated are malarial fevers, diseases of the digestive system, ulcers and other skin diseases, diseases of the eye, and diseases of the respiratory system, worms, and diseases of the ear. About 1,184,500 surgical operations were performed. Special mention is made of the appreciation of the work of lady doctors in Burma and the Punjab. In recent years the 17 public medical institutions in Calcutta have been greatly improved and extended. In Bengal, outside Calcutta, satisfactory results have attended the system of deputing medical officers of dispensaries to give medical aid at outlying market centres. In Bombay extensions of several hospitals were in progress. A nursing home was provided at Ahmedabad. In the Punjab a problem has arisen as to the use of charitable institutions by well-to-do persons. In the United Provinces there was a large expenditure on buildings. Eye departments have been added to the Rangoon and Mandalay hospitals. Hospital extensions were made in Madras. HOSPITALS.

There are Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras), and the number of patients treated was 1,389 and 340 respectively. Pasteur Institutes.

The treatment of lunatics at asylums prevails on only a small scale in India, where in comparison with European countries insanity appears to be infrequent. The census of 1901 showed a decrease of nearly 11 per cent. in the number of insane since 1891. The decrease occurred in nearly every province, and was ascribed in many of them to the high death-rate of the insane in famine years. The number admitted into Indian asylums in 1908 was 1,584, the average for the five years to 1908 being 1,571. The total asylum population of the year was 7,245. The causes of insanity are not very accurately classified, but the most important alleged cause is the use of hemp drugs. The expenditure of the asylums amounted to £74,250, most of which was borne by the State. Lunatic Asylums.

There are many leper asylums, of which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers. The census of 1901 showed a decline in the number of lepers to 97,340, compared with 126,244 in 1891, and the proportion works out to 48 male and 17 female lepers per 100,000 of the population. Berar had the largest proportion of lepers (2 per mille), followed at some distance by Assam, Bengal, the Central Provinces, Burma, Madras, and Bombay, in that order. Leper Asylums.

## EMIGRATION AND MIGRATION.

EMIGRATION.

(*For further details see Statistical Abstract for British India, Tables* 191 *and* 192.)

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government in East and Central Africa, is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation. This Act, passed during the year under review, made no changes in the substance of existing law, but merely for convenience repealed all previous enactments and incorporated in one statute the provisions relating to colonial emigration.

There were six emigration agencies at work during the year at Calcutta, five representing British colonies and one the Dutch colony of Surinam. The total number of labourers requisitioned rose from 8,414 in 1907 to 9,276 in 1908. The number supplied during the year was 10,160. There was no alteration in the terms offered to intending emigrants. The number of recruiting licences granted was 598, as compared with 566 in 1907, and of these 25, or 4·18 per cent., were subsequently cancelled. The total number of emigrants registered during the year was 17,748, giving an average of 29 emigrants per recruiter, as against 23 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 86·99 per cent.; Bihar, 5·08 per cent.; Bengal, Calcutta.

EMIGRATION. 5·13 per cent.; Punjab, 2·11 per cent.; Central Provinces, 0·40 per cent.; Ajmere, 0·27 per cent.

The number of emigrants admitted to the Calcutta depôts was 13,789, or 3,575 more than in 1907. Of the remainder, 3,030 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts was 0·55, as compared with 0·74 in the preceding year, and the percentage of rejections increased from 12·65 to 12·78. The percentage of desertions decreased from 1·79 to 0·34. After deducting casualties of all kinds, there remained 11,349 emigrants available for despatch to the colonies, of whom 10,519 actually embarked during the year, as against 7,178 in the previous year. They were distributed as follows:—Trinidad, 2,447; Demerara, 1,797; Surinam, 1,872; Fiji, 3,162; Jamaica, 416; Natal, 825. The total number shipped included 2,808 women and 383 returned emigrants who re-emigrated. The death-rate on the ships carrying emigrants was 0·52 per cent., 19 out of the 55 deaths that occurred being due to cerebro-spinal fever, 20 to measles, and the rest to chest affections and other diseases.

The number of emigrants who returned from the several colonies was 4,197, and their ascertained aggregate savings amounted to nearly £50,000. The average savings per head varied from about £25 in Trinidad to about £5 in Natal, no figures being available for Mauritius; but 1,560 adults—37·16 per cent. of the total number of returned emigrants—brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in Demerara, Trinidad, and Fiji, and some decrease as regards Natal, Mauritius, and Jamaica. The average was again highest in the case of Natal (about 10*s.*), and Fiji was again the only other colony where the average remittance exceeded one rupee.

Madras. The numbers of emigrants embarking from Madras for Natal and Fiji respectively were 2,190 and 349, the corresponding figures for 1907 being 5,963 and 796. More than half the emigrants to Natal were from Madras, Vizagapatam, and North Arcot districts. No emigrants went to Mauritius or the Seychelles. Two thousand seven hundred and sixty-three emigrants returned from Natal with savings amounting to £20,271, 86 from Fiji with £44, and 199 and 59 from Mauritius and Réunion respectively without savings.

As regards non-regulated emigration, the number of emigrants to the Straits Settlements decreased from 62,537 to 58,778, of whom 50,156 started from ports in the Tanjore district. There was an increase in the number of passengers both to Burma and Ceylon; to be attributed, in the former case to increased demand for labour in Burma, and in the latter case to the cheapening of steamer fares from Tuticorin.

Bombay. The number of emigrants shipped from the port of Bombay fell from 254 to 67. Of these, 27 were bound for Mombasa and Uganda; 32 of them were Punjabis. From Karachi 52 emigrants left for service on the Uganda Railway; 32 were from the Punjab and 18 from Sind. The number of emigrants who returned to Bombay was 131, all time-expired men from Mombasa. From Broach 99, from Surat 718, and from Kolaba 331 persons emigrated to South Africa. The colonial immigration laws had a deterrent effect.

MIGRATION. During the year under review, the Government of India by notification under
Assam. section 221 of Act VI. of 1901 declared that the provisions of that Act relating to labour districts were, with some minor exceptions, withdrawn from the Surma Valley districts and the districts of Kamrup and Goalpara in Lower Assam; and they passed Act XI. of 1908, the object of which was to enable contracts to be dispensed with in the case of emigrants proceeding to those four districts. The new Act re-enacted section 91 of the 1901 Act so as to enable local governments by notification to dispense with, or relax, any of the provisions of chapters 3–4 of the Act. Thereupon the Governments of Madras and Bengal issued notifications under the revised section 91, declaring that in the case of emigrants recruited for those districts by licensed contractors and *sardars* not accredited to the local agent of an approved association, the provisions of the Act that prescribe the execution of agreements should no longer be enforced; and the Government of the United Provinces made use of its new powers to exempt *sardars* from the four districts from the provisions of chapter 4 of the Act.

The total labour population at the end of June 1909 was 755,838, an increase of 16,043 on the figures for the preceding year, the decline of 20,750 in the number of "Act" labourers being more than balanced by an increase of 26,112 in the number

of free labourers. The number of immigrants was 60,773, as against 84,824 in 1907-8, which was, however, an abnormal figure. Of the 42,524 adults who immigrated, 35,229 were free labourers. The high importations, with so large a proportion of free labourers, may be attributed to some extent to a decline in the prejudice against Assam in the recruiting districts. The largest number came from Chota Nagpur and the Sonthal Parganas. There was a great improvement in the health of coolies during transit, and the number of deaths fell to 75, of which 50 were from cholera. There was a satisfactory decrease in the number of complaints of fraudulent recruitment from 72 to 46; and fraud or irregularity was proved in only eight cases. The number of contracts made in recruiting districts fell from 13,312 to 7,295; the number of coolies recruited by *sardars* being 1,123. There was little change in the rate of wages. MIGRATION.

The rate of mortality among adults rose from 32·27 to 39·1, owing to the general unhealthiness of the year and the fact that many of the 1907-8 immigrants were of inferior physique. Only two complaints of ill-treatment were lodged by coolies against employers, and both were dismissed. Desertions increased from 2,730 to 3,023. The relations between planters and villagers continued to be satisfactory.

During 1908, 319,271 immigrants and 301,059 emigrants passed through the ports of Rangoon, Akyab, Moulmein, Kyaukpyu, Tavoy, and Mergui; the figures for Rangoon being 252,075 and 227,568. Burma.

The number of passengers, excluding indentured emigrants, who arrived at the several ports of the Madras Presidency during the year was 295,029, against 284,431 in 1907. Of this total, 89,516 came from Burma and 151,700 from Ceylon, the decrease in the former case being due to the unfavourable season in some districts, which deterred emigrants from returning to their homes. Madras.

The only movement of the population that occurred in Bombay during the year under report, beyond the usual seasonal emigration in search of employment, was the immigration of 22 families from Bhavnagar into Kaira in order to take up waste lands in the district. Bombay.

## PRICES.

PRICES.

(*For further details see Statistical Abstract for British India, Tables* 203 *to* 209.)

The rise in the prices of commodities in India during recent years has been the subject of much discussion. The marginal table of prices during the 11 years to 1908 has been compiled from Government returns showing the index numbers of the prices of: (*a*) 11 articles imported; (*b*) 28 articles consumed in India or exported; (*c*) food-grains. The prices under (*a*) and (*b*) are wholesale, and under (*c*) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100. General.

| Year. | Index Number for Articles imported. | Index Number for Articles consumed or exported. | Index Number for Food-grains (Retail Prices). |
|---|---|---|---|
| 1873 - | 100 | 100 | 100 |
| 1898 - - | 80 | 102 | 139 |
| 1899 - | 87 | 100 | 137 |
| 1900 - - | 97 | 124 | 192 |
| 1901 - | 96 | 116 | 157 |
| 1902 - - | 86 | 113 | 141 |
| 1903 - | 88 | 103 | 126 |
| 1904 - - | 93 | 104 | 117 |
| 1905 - | 96 | 117 | 147 |
| 1906 - - | 105 | 141 | 179 |
| 1907 - | 116 | 148 | 180 |
| 1908 - - | 118 | 155 | 231 |

After 1900, a year of severe famine, the tendency of prices for articles of Indian produce was, for several years, downward. The prices of imported articles steadily rose after 1902, while a sharp and rapid rise in the prices of articles of Indian produce, especially food-grains, began in 1905. The rise was accentuated in 1907 and 1908 by the widespread failure of crops in Northern India. The Government has deputed an officer to investigate the extent, the causes, and the probable effects of the general rise in Indian prices. Landholders whose land revenue assessments have been settled for long periods, and cultivators who hold land at fixed rentals, reap an advantage from high prices. It is probable that the trading classes have benefited by the rise in prices, and there is reason to believe that owing to the enhanced demand for labour, due to industrial activity, the advance in wages has kept pace with the rise in prices in great industrial centres. But where wage rates are more or less customary, or where incomes are more or less fixed, as in the case of pensioners, public and private employees, and the professional classes, the increased cost of living

PRICES.

is a serious matter. Extra allowances, known as grain compensation allowances, have been made on a large scale to Government servants to cover the cost of dearer food.

The following paragraphs relating to prices are based on statements contained in agricultural and other reports.

Bengal. Prices, which had attained an unusually high level in 1906–7 and 1907–8, continued high at the beginning of 1908–9, but there was a perceptible fall after the paddy harvest. Common rice was cheaper in most districts, but wheat and gram were dearer.

United Provinces. Prices, which had been generally at a high level since 1905, and had been exceptionally high in 1907–8 owing to famine, eased off appreciably during 1908–9. There was a marked fall in the prices of the coarser grains, which, as usual, during scarcity had approximated more closely than usual to those of wheat. There was again a shortage of gram, which fetched a high price.

Punjab. With a much better harvest than in 1907–8, prices fell, though they continued far in excess of the average of previous years, owing partly to the desire of grain merchants to replenish their depleted stocks of food-grains, and partly to forward purchases of wheat for export. As regards particular crops, the price of rice was 54 per cent., of wheat and barley, 63 per cent., of jowar, 63 per cent., of bajra, 58 per cent., and of maize, 70 per cent. above normal.

North-West Frontier Province. Owing to large exports down-country and to the military operations in 1908, the prices of all food-grains continued high throughout the year, but prices of oilseeds and gram declined owing to good harvests, though remaining above normal.

Central Provinces and Berar. The improvement in general conditions resulted in a considerable fall in prices, which, however, remained high. Prices of common rice, jowar, and gram fell about 35 per cent., and of wheat 18 per cent.

Burma. The prices of all agricultural produce, though lower than the extreme rates which prevailed in 1907–8, were still high. The price of paddy in 1908–9 was at or below normal in most districts, and the same remark applies to jowar. The price of gram was everywhere above the average, and that of sesamum generally so.

Eastern Bengal and Assam. The prices of food-grains, which had been extremely high in 1907–8, were uniformly lower in 1908–9. There was a steady fall in rice from September to March, when retail prices were lower than for three years past, in spite of a bad winter crop. The price of jute, which had fallen heavily during 1907–8, was still lower in 1908–9.

Madras. There was a further general advance in the prices of staple food-grains during the year. Rice, ragi, cholum, and cumbu rose almost everywhere.

Bombay. Although the season was favourable except in the East Deccan and Karnatak, prices ruled far above normal everywhere, and were even higher than in 1907–8 in the Karnatak. Rice was generally cheaper, but though the crops of wheat, gram, and cotton were better than in the previous year, prices were higher, probably owing to the depletion of stocks. There was, however, a small but general fall in Sind.

WAGES.

## WAGES.

*(For further details see Statistical Abstract for British India, Tables 201 to 203.)*

Bengal. The high level of wages reached in 1907–8 was maintained during the year, and was even exceeded in the vicinity of Calcutta. This is due partly to the growing demand for skilled labour in towns and in mills, collieries, and brickfields, and on railways, partly to the high prices of food-grains. In some districts it is ascribed to the emigration of the labouring classes to Assam and elsewhere. A strike occurred in the Bettiah sub-division in April 1908, because cultivators attempted to commute wages from grain to cash on the basis of the lower prices of previous years. In the Bhagalpur district the labourers were willing to work at the old rate of grain wages, but not at the old rate of money wages. In Purnea wages rose to 8 annas or more a day in the jute season. The Darjeeling tea industry suffered from a short supply of labour. The Bengal Government has arranged for a quinquennial wage census.

United Provinces. Employment was generally adequate, and during the height of the malaria epidemic in the autumn of 1908, labourers able to work could almost make their own terms. Apart from these exceptional conditions, wages show no sign of returning to the level customary a few years ago, and are probably still tending to rise. This is all to the good for the labourer, and the low-caste small cultivator, who works the land with his family and occasional help, has little ground for

WAGES.

complaint, but high caste cultivators feel the change in cases where they cannot command labour at the old customary rates, and in some parts the latter are making their families work. Landholders who cultivate any considerable portion of their land feel the change acutely and are taking much interest in all kinds of labour-saving machinery.

Punjab.

The demand for labour is still in excess of the supply and wages continue to increase. Many districts report a flow of labour from the villages to the towns or the new canal colonies, and the gradual breaking up of the old system of hereditary village menials paid in kind at customary rates. These menials now migrate freely to cities or new colonies or wherever remunerative employment exists.

North-West Frontier Province.

There is no separate class of agricultural labourers in the province. The wages of those employed in agriculture have risen considerably owing to the great demand for unskilled labour for canal and other works and for military purposes, while plague has reduced the supply. Wages have risen, partly on account of the general rise in the price of foodstuffs.

Central Provinces and Berar.

Wages continued very high during the year. Ample employment was available in agriculture, mining, irrigation, and railway works, and, as usual, there were frequent complaints of a shortage in the supply of labour.

Burma.

In Lower Burma the rates of wages were much the same as in the previous year. The condition of the factory operatives is good, and unskilled labourers are said to be generally better off in factories than in paddy fields.

Eastern Bengal and Assam.

The year was not good for labourers, owing to the high prices of rice and other food-grains and the increased supply of labour, combined with the diminished means of employers. There was in parts some decrease in the wages of agricultural labourers, but on the whole they varied little.

Madras.

The demand for agricultural labour is becoming more difficult to meet and the daily wages paid to coolies are increasing. Agricultural labourers are usually paid in kind, but casual labourers in cash. In towns and in villages near towns, the practice of paying wages in money is gaining ground, and generally with the rise in grain prices it tends to supplant payment in kind. Rice factories have become more numerous, and they provide well-paid work for a large number of coolies. Wages being equal, work in mills is preferred to work in the fields. Although prices of food-grains continued to be high, it was impossible to obtain the average number of coolies for Ceylon. In some districts landowners and ryots fail to realise that if they wish to retain the services of coolies they must give them part of the increased profits due to high prices.

Bombay.

The demand for labour again exceeded the supply, and wages rose. The commercial and industrial expansion of cities like Bombay, Karachi, and Ahmedabad, the growth of mining, and the construction of public works, offer a wider field every year for skilled and unskilled labour. With the increased demand wages tend upward. The high prices of food have also necessitated higher wages. There is a shortage, especially in Ahmedabad, in the supply of agricultural labourers, who are therefore able to command relatively high wages. Although wages were exceptionally high in Sind, canal-clearing operations could scarcely be carried on owing to scarcity of labour.

## FAMINE OR SCARCITY.

FAMINE OR SCARCITY.

United Provinces.

In 1907–8 a widespread failure of the autumn harvest and a serious reduction in the area and out-turn of the spring crop forced large numbers of the population to resort to the Government for relief. In spite of the fullest extension of irrigation, the autumn and spring harvests yielded only 31 and 60 per cent. of the normal respectively. The executive was faced with the necessity of providing direct measures of famine relief over an area of 66,000 square miles with a population of nearly 30 millions. Famine was declared in the whole or part of 19 districts, and the full measure of relief contemplated by the code was undertaken. The numbers on relief rose steadily till the 14th March 1908, when there were 1,411,576 persons. With the harvesting of the spring crop and a fall in prices the numbers fell off, but on 2nd May there were still 1,187,148 on relief. Early in May, in anticipation of the setting in of the rains, the large public works were broken up into groups of small works, most of which were placed under the direction of district officers. Dependants were not relieved on these works, and the dependants on the former

FAMINE OR SCARCITY.

large public works were drafted where necessary to gratuitous relief. As a result, the numbers on gratuitous relief increased, the total on 1st August reaching 550,000. Owing to the liberal distribution of gratuitous relief to people unable to work or leave home the use of poor-houses was almost unnecessary. The units thus relieved numbered 87,818,584. By August nearly all the works were closed, and the workers received their valedictory doles. By the end of August nearly all gratuitous relief had also ceased. By the close of September the cultivators had harvested the early autumn crops, which yielded a fair normal out-turn. The prices of the cheapest food-grains, which in July were at famine rates, fell considerably in August and September, but they did not fall during the year to the rates current prior to the famine.

The remainder of 1908–9 was chiefly a period of recovery from the effects of this great famine. In a few districts the recovery was not complete, and owing to the failure of the monsoon of 1908 or the subsequent winter rains, relief operations had to be organised in certain areas and were continued until the rainy season of 1909.

Bengal.

The failure of the previous year's paddy crops caused severe distress in Orissa and also in parts of Nadia, Khulna, Murshidabad, Jessore, and Bankura in 1908–9. Gratuitous relief was given and test works opened in the last three of these districts and in the Orissa districts. Famine was declared temporarily in a portion of Ranchi district containing 237,000 persons. The failure of the winter rice crop in North Behar caused fresh disaster in a tract that had not recovered from the previous distress. Gratuitous relief was given, and test works were opened in Muzaffarpur and Bhagalpur. Famine was declared in Darbhanga, and a large number of persons were employed on relief works. Land improvement loans were liberally granted as well as agricultural loans.

Central Provinces and Berar.

The effects of the crop failure of 1907–8 continued to be felt during the first half of 1908–9, and relief works could not be closed till the end of September 1908. Relief was given by works and by liberal grants of loans, supplemented by gratuitous relief. The largest number on relief was 51,161 in August. The weavers especially suffered.

Eastern Bengal and Assam.

Owing to serious shortage of rain famine conditions prevailed in the Rajshahi Division, with their attendant relief work and gratuitous relief grants.

Bombay.

The season was poor in the East Deccan and the Karnatak, and large suspensions of land revenue had to be granted in the affected tracts, with remissions of land and irrigation revenue. In Nasik, Bijapur, and Dharwar relief works were opened.

GENERAL REMARKS.

## GENERAL REMARKS.

The following general notes on the condition of the people during the year are based on observations recorded by the Provincial Governments.

Bengal.

The comparative poorness of the harvest of 1908–9 (especially in Behar), succeeding two years of bad crops, made the year one of hardship for all classes. The resulting high price of food-grains caused distress to families living on small fixed cash incomes, and to a less extent to labourers, wages responding quickly to the rise in grain prices. The Government made liberal grants of loans, and, where distress was acute, provided liberal relief. The labouring classes moved rather more freely within the province and to other parts of India in search of work. Good crops will be required for two successive years to restore the agricultural classes to their former economic condition. As regards industries, the hand-loom industry in Hooghly district continues to flourish and the condition of the weavers has improved. In the Presidency Division many fly-shuttle looms have been introduced. But there is an absence of joint-stock enterprise, and the aversion of the higher castes to trades and industries hinders economic development. The standard of living is rising among the well-paid labourers in the 24 Parganas, and they now regard umbrellas, shoes, cigarettes, scents, and aërated waters as necessaries, while tea-drinking is increasing. Cigarettes and tobacco are now made on a large scale in a factory at Monghyr, and the market is flooded with cheap cigarettes. Distress in Orissa caused emigration to Calcutta.

United Provinces.

Although some tracts remained depressed as a result of the great famine of 1907–8, the autumn harvest as a rule brought a marked relaxation of the pressure. A terrible epidemic of malaria hindered the sowing of the spring crops, but plague was much less prevalent.

GENERAL REMARKS.

Punjab.

The year 1908–9 was one of unprecedented all-round prosperity. With crops well above the average, cultivators sold their surplus produce at rates some 50 per cent. in excess of the prevailing rates of past years on which the revenue demand was based. Both large and small landowners, but especially the former, have profited, while tenants and labourers have shared in the general abundance.

North-West Frontier Province.

The condition of the people was generally prosperous and improving. The harvests in 1908–9, especially the autumn one, were good, but prices ruled high, and this pressed heavily on the labouring classes who own no land, and upon the inhabitants of the cities.

Central Provinces and Berar.

After the bad harvests of 1907–8 ample measures of relief were afforded by the Government, and the condition of the people improved during 1908–9. The recovery, however, was only partial, for the crops were not uniformly good, and high prices continued. The short cotton crop, the fall in the price of manganese ore, and the political agitation accentuated the depression.

Burma.

In Burma, agricultural conditions were very favourable during 1908–9, and the rice crop was, in parts, unprecedentedly abundant. For the cultivator the year was one of marked prosperity and progress. Prices, though lower than in the previous year, were sufficient to yield him a good return. In Upper Burma a succession of bad seasons had caused agriculturists to feel the pinch of poverty, but the season 1908–9 was exceptionally good, especially in the dry districts, and it is hoped that they have now recovered their position. The notable increase in ground-nut cultivation in six of the most precarious districts has been an important factor in the improvement. It is doubtful whether good crops and high prices in parts of Lower Burma have permanently improved the position of the cultivators, who too often squander their increased incomes on unproductive luxuries. The occupation of the cultivable land in Hanthawaddy district, near Rangoon, has brought into existence a non-resident, non-agricultural class of landholders who are said to exploit their tenants, leaving them a bare subsistence. An inquiry has been instituted into the condition of the agricultural population in parts of the Irrawaddy delta.

Eastern Bengal and Assam.

The present tendency of this province is away from self-sufficiency in food-grains, and in the direction of a greater dependence upon cash remuneration derivable for saleable products, such as jute. The high price of rice and the low price of jute in 1908–9 hit the ryot both as consumer and producer. There was general tightness of money, and a distinct rise in rates of interest on loans. Many persons were forced into hired labour from failure of private cultivation and enterprise.

Madras.

Continued high prices rendered the general condition of the agricultural classes increasingly prosperous. The condition of the labouring classes is also improving. Greater attention is paid to the raising of new crops and to new methods of cultivation.

Bombay and Sind.

In 1908–9 the season was only moderately good. But liberal remissions and suspensions of land revenue were made in certain tracts affected by scarcity. There was ample employment in non-agricultural work. In Surat the labouring classes are turning to cultivation.

# CHAPTER XVII.

## ARMY AND MARINE.

*(For further details see Statistical Abstract for British India, Tables 70 and 180 to 190.)*

ARMY.

### ARMY.

The sanctioned establishment of the army in India for 1908–9 and its actual strength on 1st April 1909 were as follows :—

| | Sanctioned Establishment. | Actual Strength. |
|---|---|---|
| British officers | 6,220 | 6,271 |
| British warrant and non-commissioned officers and men | 73,447 | 74,931 |
| Native officers, non-commissioned officers, and men | 159,337 | 152,353 |
| Total, 1908–9 | 239,004 | 233,555 |
| ,, 1907–8 | 236,172 | 227,714 |

During 1908–9, as in the previous year, four battalions of Native infantry were employed in the colonies. The number of battalions from the Indian establishment absent in China was reduced from two to one.

The sanctioned establishment of the Native army reserve was 35,736, and its actual strength on 1st April 1909 was 36,970, as against 34,846 on 1st April 1908.

The number of Volunteers in the whole of India on 1st April was as under :—

| | 1908. | 1909. |
|---|---|---|
| Enrolled strength | 34,962 | 36,638 |
| Efficients | 33,348 | 35,597 |
| Reservists | 2,086 | 2,009 |

The net expenditure on the army (exclusive of Special Defence Works) in 1907–8 and 1908–9 was as follows :—

| | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Effective charges | 14,628,955 | 15,266,362 |
| Non-effective charges | 2,996,099 | 3,047,965 |
| Total | 17,625,054 | 18,314,327 |

The following changes affecting the Indian Army came into effect during the year 1908–9.

The reform of Army Administration which began in 1906, when the Military Department of the Government of India was abolished and its work was divided between the Army and Military Supply Departments (then newly created) and the Finance Department, was completed at the end of the year under review by the abolition of the Military Supply Department on 1st April 1909, when the direction of the whole military administration, under the supreme control of the Viceroy, passed to the Commander-in-Chief as Member of the Governor-General's Council in charge of the Army Department.

A revision of the rates of pay of captains and subalterns of the Indian Army, and of regimental salaries, involving a considerable addition to the emoluments of the junior grades, came into effect on 1st January 1909, and also a general increase of the pay of all native ranks, together with arrangements for the free supply of fuel by Government.

A new rate of pension (£600 a year) was instituted for officers of the Indian Army retiring after 30 years' service. The same rate was sanctioned for officers of the Indian Medical Service retiring after 27½ years service.

A new Indian medal, termed the Indian Meritorious Service Medal, was instituted as a reward for specially meritorious service performed by native troops in peace or war.

The only active military operations during the year took place in the spring, when, shortly after the Zakka Khel expedition of the previous year, Major-General Sir James Willcocks successfully carried out a brief punitive expedition against the Mohmands.

In recognition of the services of the troops engaged in these expeditions, H.M. the King sanctioned the institution of a new medal, to be called "The India General Service Medal, 1908," with a clasp inscribed "North West Frontier." ARMY.

*Health of the British and Native Armies.*—The year 1908 was an unhealthy one, as the monsoon rainfall was abnormal. In the British Army the rates of admission to hospital, and of mortality, were higher than in 1907, though lower than in the antecedent quinquennium, as appears from the table below. The increased sickness and mortality fell entirely upon the troops of the Northern army, and was due chiefly to the greater prevalence of malaria; but, excepting venereal diseases, most of the important diseases were more prevalent than in 1907. There was a great decline in invaliding, due partly to the healthiness of 1907, partly to more men being sent to hill stations. The admission rate for ague was no less than 244 per 1,000, or 29 per cent. of the total sickness, and the rate for all venereal diseases was 69·6 per mille of strength, which compares favourably with 90 in 1907 and still more with 486 in 1897. The marked decline in venereal diseases is attributed to the encouragement of healthy pastimes, to education and a better moral tone, and to the growth of temperance, as well as to improvement in the methods, and the longer duration of treatment. The chief causes of death were enteric fever, cholera, and abscess of the liver, the mortality from each being 2·76, 1·10, and 0·80 per mille respectively. Cholera caused 76 deaths, of which 50 were among the troops of the Mohmand Field Force. The mortality from enteric fever was the lowest since 1885.

The health of the Native troops, though better than that of the British troops, was less satisfactory than in the exceptionally healthy year 1907; the admissions, the constantly sick rate, the invaliding rate, and the death-rate being all higher. The chief cause of sickness was, as usual, ague, and the admission rate for 1908 rose to 266·2 per mille, or 39 per cent. of all cases of sickness, as against 220·5 in 1907. Pneumonia, which, as usual, was the chief cause of mortality, accounted for 30 per cent. of all deaths. Cholera, malaria, and enteric fever helped to swell the mortality. There were only 14 deaths from plague during the year.

The following table shows that the admission rate among British troops during 1908 was nearly 1¼ times as high as that among Native troops and that the constantly sick rate was more than twice as high:—

| | Ratio per Mille of Strength. | | | | | |
|---|---|---|---|---|---|---|
| | British Troops. | | | Native Troops. | | |
| | Average 1902–6. | 1907. | 1908. | Average 1902–6. | 1907. | 1908. |
| Admissions into hospital - - | 939·3 | 756·4 | 839·5 | 649·5 | 628·9 | 674·4 |
| Constantly sick - - - | 57·7 | 46·4 | 45·7 | 24·4 | 21·7 | 22·8 |
| Deaths - - - - | 11·72 | 8·18 | 9·78 | 8·93 | 6·27 | 7·41 |
| Invalids - - - | 30·05 | 25·50 | 15·64 | 10·00 | 5·76 | 6·63 |

## MILITARY WORKS.

MILITARY WORKS.

The expenditure on military works in 1908–9 amounted to £908,108. There was also an expenditure of £29,144 on Special Defence Works. The corresponding figures for 1907–8 were £1,109,675 and £116,287.

## MARINE.

MARINE.

The net expenditure on marine services amounted to £351,509 in 1908–9, as against £397,338 in 1907–8. In this amount are included the cost of the Royal Indian Marine, the contribution towards the expenses of His Majesty's ships employed in the Indian seas, and charges for pilot establishments and vessels, coast lights, and other smaller items.

On the 1st April 1909 the Royal Indian Marine consisted of ten sea-going vessels, three inland and harbour vessels, and a number of small steamers, launches, &c. There was an establishment of 102 executive officers, 81 engineer officers, and 71 warrant officers (including 12 assistant surgeons of the Indian Subordinate Medical Department); and the native crews of the vessels (seamen, artificers, and others) numbered, in all, 1,961.

# CHAPTER XVIII.

## FRONTIERS AND NATIVE STATES.

### FRONTIER STATES.

FRONTIER STATES. Baluchistan: Frontier and Native States.

The land revenue realised in the Baluchistan Province for the year 1908–9 amounted to £59,400, as compared with £50,700 in 1907–8. In some parts there was agricultural depression, but generally fair harvests were secured. Owing to famine in neighbouring provinces, prices rose considerably, especially in the Quetta-Pishin district. The prohibition against the export of wheat from Afghan territory was enforced with strictness, and some inconvenience was thereby caused to the inhabitants of the Chaman, Pishin, and Chagai borders. Scarcity of pasturage, due to scanty rainfall, was especially felt in the Chagai district, the Bolan Pass, the Shahrig Tahsil, Mekran, and in the Marri tribal area. Floods, on the other hand, did considerable damage to the civil buildings at Killa Saifulla, in Zhob, and to the western section of the Nushki–Seistan trade route. Cattle diseases caused much mortality among the agricultural stock in the Loralai district and some parts of Sibi, Nairabad, and Fort Sandeman Tahsils. Cholera caused 71 deaths in the Pishin Tahsil, but the measures taken to isolate the affected villages effectively checked the spread of the disease.

The returns of trade for 1908–9 along the Nushki–Seistan trade route show that there was some decrease in the value of trade with both Persia and Afghanistan as compared with the preceding year.

The Afghan border was much disturbed by bands of outlaws. On the Quetta-Pishin frontier several raids of minor importance occurred. On the Zhob frontier they were more numerous and more serious. The most conspicuous amongst the disturbers of the peace was Jemadar Gul Bahram, Jogezai, of the Zhob Levy Corps, who in January 1909, when in command of the Saradarga post, deserted with 10 sowars and most of the horses, rifles, and ammunition of the post. He was subsequently joined by several bad characters. This band kept the Zhob border in a continual state of unrest. Finally they attacked a party under Captain Loring in the Sharantoi defile on 27th February 1909. Lieutenant Gwatkin, of the 15th Lancers, was unfortunately killed, and the raiders escaped in a snowstorm with the loss of one man killed and one captured. Gul Bahram and his followers crossed, subsequently, into Afghan territory. Steps have been taken in communication with the Amir to prevent their reappearance on the frontier. There were no raids on the Perso-Mekran border during the year.

The importation of arms from the Persian Gulf into Afghanistan and into Persian Baluchistan continued during the year under review on a large scale. A force of 500 infantry with two machine guns was sent to Robat in April 1908 to reinforce the military detachment already there, and to assist in intercepting any caravans which might attempt to reach Afghanistan through the Chagai district. This additional force was withdrawn in August, at the close of the arms-running season. Though no captures were made, the traffic by this route was blocked. But the trade through Persian territory, being practically without check, increased considerably in volume.

The behaviour of the tribes in the Quetta-Pishin, Chagai, and Loralai districts was on the whole satisfactory.

The working of the police of the Province was satisfactory, and the conduct and discipline of the force was good.

The District Levies did excellent work during the year. The Quetta-Pishin Levies especially distinguished themselves by good work during the cholera outbreak at Bostan, where they were employed in carrying out the measures taken for the isolation of affected villages.

The inquiry into Kharan affairs and into disputes regarding the Mekran-Kharan and Kharan-Chagai boundaries, which had been entrusted to Major Whyte, was brought to a close shortly after the termination of the year under review.

A development of the quarrel between the Mengal and Jamot tribes on the frontiers of the Native States of Kalat and Las Bela caused disturbances which at one

time threatened to become serious. At the request of the Jam of Las Bela, who feared reprisals by the Mengals, 300 infantry were sent from Karachi to protect his capital. The Khan of Kalat having confessed that his troops were not fit to march against the rebels, a column of 300 infantry, half a squadron of cavalry, and 2 mountain guns was sent to Kalat from Quetta. A further force was held in reserve to support the Political Agent during his negotiations with the rebels. This show of force had a quieting effect on the refractory tribesmen, who agreed to come to terms. The case was finally settled by arbitration. Apart from these incidents, the year was uneventful in the Kalat State. The general administration of the six Kalat Niabats by the Political Adviser was satisfactory. Their financial condition continued to improve. FRONTIER STATES.

The administration of the Las Bela State under the guidance of the Wazir was satisfactory. The ill-feeling between the Jam and his younger brother resulted in January 1909 in an open rupture, and to meet the chief's wishes the latter has been required to live out of the State.

The circumstances in which it was found necessary to send punitive expeditions against the Zakha Khel section of the Afridi tribe in February 1908, and later in May of the same year, against the Mohmands, are recorded in last year's statement. The latter expedition was brought to a satisfactory close on the 30th of May 1908. Papers in regard to both expeditions were presented to Parliament.* North-West Frontier Province.

When the year under review opened, the settlement which had been come to with the Afridis, after the close of the Zakha Khel expedition, was jeopardised by intrigue from Afghanistan, whereby the Zakha Khel tribesmen were encouraged to offer further resistance. In the beginning of May, a large *lashkar*, headed by the Sufi Sahib of Ningrahar, entered Khyber limits with the avowed object of raising the Afridi tribes. For a time the situation appeared critical, but the tribes adhered loyally to their pledges, and the Afghan *lashkar* was driven across the border. Meanwhile the Mohmands, with similar encouragement, had committed themselves by attacks on British territory, and the punitive expedition against them, above referred to, was necessitated. The ultimate effect of these expeditions was to produce quiet on the Peshawur border, marred only by incursions from his refuge in Afghanistan of a Zakha Khel irreconcilable with whose death the disquiet ceased. On the frontier to the south of the Peshawur district, with the exception of some disturbance and unrest on the Derajat border, where the struggle for supremacy among the Mahsuds between the party of order and the malcontent faction of the Mulla Powindah, resulted in a number of raids, there was a comparatively small amount of raiding by the tribes under British control. On the other hand, the number of raids from Afghan territory by outlaws and Afghan subjects increased very largely. A regrettable incident occurred in the Shirani country on the 12th of March 1909, when Mr. MacDonald, the officer in charge of a survey party, was murdered by three Shirani fanatics. In consequence of this outrage it was found necessary to bring the work of the survey to a close and withdraw the party. The ringleader of the murderers was promptly arrested and executed. As the other two culprits were not surrendered, punishment was inflicted on their village.

Owing to the prevalence of cholera in Dir, the usual annual reliefs of the Chitral garrison were cancelled. Cholera and the disturbed state of the Mohmand border caused trade with Bajaur to remain at a standstill for two months, the result being a considerable decrease in the volume of trade which passed through the Malakand.

In Swat the attitude of the tribes remained friendly.

In Chitral the Mehtar's administration was satisfactory, and prompt measures were taken by him to control the action of certain Mullas who wished to excite sympathy with the Afghan Mullas at the time of the frontier disturbances.

The Frontier Militia Corps continued to do good work, and the discipline of the force generally is reported to have been excellent. The Khyber Rifles maintained their high record. The Kurram Militia did excellent service in preserving order on the disturbed Afghan-Kurram border.

Some reorganisation of the Border Military Police was reported to be necessary, but during the year they did well on several occasions, notably in Kohat, where a party annihilated a gang of raiders.

A change was inaugurated experimentally in the composition of the Councils of Elders, to whom cases are referred under the Frontier Crimes Regulation. Instead of

* *See* East India (North-West Frontier).' Cd. 4201. 1908.

FRONTIER STATES.

a few men being appointed in each individual case as heretofore, periodical large sessions are held. It is reported that the system, which is similar to that existing in Baluchistan, promises to be a success and is generally popular.

The Province enjoyed an exceptionally good harvest. The results of enumeration showed that the number of cattle had increased largely in the last five years.

Kashmir.

Information as to the affairs of the Kashmir State for the year 1908–9 was not available when this Statement was prepared.

The following information as to the affairs of the preceding year was given in last year's Statement :—

"The finances of the Kashmir State continued to be satisfactory. The revised budget estimates for 1907–8 showed the estimated receipts at £660,000, against an actual total of £712,600 for 1906–7. The estimated figure for expenditure was £760,000, against £724,000 for the previous year. The total budget grant under public works was £169,500, and the expenditure amounted to £152,500. The estimates included capital expenditure of £96,000 on the Jhelum power project and £37,000 on the dredging scheme. Special repairs and improvements to the Jhelum valley road were undertaken. In the Jammu Province a cantilever bridge was built at Rajouri over the Tawi river. A large suspension bridge at Kharal, which was washed away by floods in 1906, was rebuilt. The iron suspension bridge at Vailoo on the Leh Treaty Road was completed. The work on the Ranbir canal was pushed on as far as funds would permit. A complete project for the dredging and drainage of the valley of Kashmir was got out and surveys completed.

"The working of the Sericulture Department was satisfactory. The rearing season was most successful, yielding a crop of 28,422 maunds of cocoons, a large increase on the previous record. The total production of the Srinagar factory rose from 190,736 lbs. of silk in 1906–7 to 230,939 lbs. in 1907–8, an increase of 21 per cent. Owing to the dulness of the market the stock of silk in hand at the close of the year was unusually large. A Director of Sericulture for Jammu was appointed during the year.

"The public health was not altogether good. Cholera broke out in an epidemic form, and caused a high mortality (9,575 deaths). Plague also reappeared in the Jammu Province, causing 142 deaths from 1st June 1907 to end of May 1908.

"Ten new primary schools were opened during the year, and a college was established at Jammu. One primary school was also raised to the status of a middle school. The revised estimate of expenditure for the Education Department for the year 1907–8 was £11,600, as against £13,700 in the preceding year."

Nepal.

The Prime Minister returned to Nepal in August 1908, after a visit to England which lasted about three months.

The Durbar prohibited the sale of opium in the State. The stock in the possession of vendors was purchased by the State, and will be sold to consumers with the warning that they must abandon the habit of taking opium within a period of three years, after which no opium will be sold.

An irrigation project for the construction of a canal in the Saptari district of Nepal was sanctioned by the Prime Minister.

The trade returns of the year 1908–9 compare as follows with those of the preceding year :—

| | 1907–8. | 1908–9. |
|---|---|---|
| | £ | £ |
| Exports from Nepal - - - - - | 2,363,551 | 2,368,277 |
| Imports to Nepal - - - - - - | 1,047,528 | 1,152,200 |

Sikkim and Bhutan.

The Maharaj Kumar Sidkeong Tulku returned to Sikkim in February 1909, after a prolonged tour in England, America, Japan, and China.

The rainfall in Sikkim during 1908–9 was below the average, and the winter crops suffered in consequence. Nevertheless more land was brought under cultivation, and the crops were on the whole normal. Much damage was caused by forest fires, owing to the abnormal drought. The public health was good. Vaccination was made compulsory in the State.

The Maharani continued making carpets at her factory, and has sold many. The cost of production is at present very high. A fourth lace school was opened. The total number of pupils on the rolls was 327, as against 307 during 1907–8. The average attendance was 253. An industrial school was opened at Gangtok.

FRONTIER STATES.

The total receipts and expenditure of the State during 1908–9 amounted to £12,930 (excluding an opening balance of £3,860) and £12,983, against £21,500 and £17,645, respectively, during the preceding year.

Frontier Tribes of Eastern Bengal and Assam.

The Bhutia and Aka tribes were well behaved, and received their *posa*, or annual allowance, with the usual ceremony. The Daflas also received their *posa*, but their conduct is stated to have been unsatisfactory. During the year under review members of the tribe were responsible for several outrages. Amongst the Miris inter-tribal disputes were rife, but when they visit British territory these tribesmen are well-behaved and readily submit to arbitration. The Abors behaved well throughout the year, and came in as usual to receive their *posa*. An attempt to blackmail the manager of the Laimekuri Saw Mills having been made by certain Abor tribesmen, the Assistant Political Officer ordered the headmen of the districts concerned to appear before him, and warned them of the consequences of such behaviour. The blockades against two sections of the Mishmi tribe were continued throughout the year. No trouble was given by the Digaru and Mijus sections of the tribe, and several of their headmen paid friendly visits to the Assistant Political Officer at Sadiya. The Khamtis were visited during the year by the Assistant Political Officer. He was informed that a party of Chinese traders had recently made their way to the Khamti Long, and had bartered Chinese opium for Khamti cloths. The Khamtis and Singphos gave no trouble during the year. The Nagas were generally well-behaved during the year. During a visit paid by the Assistant Political Officer to the Rangpang hills he exacted punishment from the tribesmen for the raid of the previous year on the Sarkari Nagas in which seven British subjects were killed. In the Naga Hills the Aishan Kukis continued to harass Naga villages and caused serious trouble towards the close of the year. The conduct of the Trans-Tizu and Trans-Dikhu tribes under British control was good, but among the independent tribes across the frontier raiding, burning of villages, and head-taking went on as usual. Their relations with Government were, on the whole, satisfactory. In the Garo Hills the people still continued to adhere to the cause of one Sonoram, an agitator of whom mention has been made in previous Statements, but having become dissatisfied with the way in which he was spending their money, they appointed men to keep a watch on the expenditure. In the Lushai Hills the year was politically uneventful. The military guard of 50 rifles at Sherkor fulfilled its object, and there were no outrages on the undefined frontier. In the Khasi and Jaintia Hills the behaviour of the several Siems, or chiefs, was generally good. Information as to the Manipur State is given on pages 135, 136.

BURMA.

The Chin Hills.

With the exception of one petty raid from a transfrontier village into Northern Arakan, which was settled without trouble, the condition of the Chin Hills was profoundly peaceful.

The prosperity of the Hill Tracts continued to advance. The medical and educational work of Government and missionaries has done much towards the civilisation of the inhabitants of these remote regions.

The Kachin Hills.

In the Kachin Hills peace prevailed throughout the year on the China border. The customary meeting between the British and Chinese officials was held in January 1909, and was more than ordinarily successful. A settlement was arrived at in a number of outstanding frontier cases, including that of the raid on Wajao committed by an armed gang from Santa in 1907. In unadministered territory the behaviour of the tribesmen was generally satisfactory. Friendly overtures were received from the Sana Kachins, who for years past had been bitterly hostile. The year was marked by a great improvement in relations with the trans-border tribes generally. The internal administration of the district was peacefully conducted, tribute was collected without difficulty, and serious crimes were comparatively infrequent. The difficult question of the preservation of forests in the Kachin Hills was receiving careful attention.

Northern Shan States.

Friendly relations were maintained with the Chinese during the year under review.

The Lieutenant-Governor visited the Northern Shan States in November 1908, and held a Darbar at Lashio, which was attended by the Shan chiefs and notables.

Apart from some damage caused by very heavy rains in November, the weather was favourable to agriculture, and good crops were secured. The public health was fairly satisfactory. Diseases amongst cattle still continued, and towards the close of the year an outbreak of rinderpest was feared.

FRONTIER STATES.

Mining operations were continued by the Burma Mines Company, Limited, and five new prospecting licences were granted during the year.

The trade returns showed a considerable increase in the value of exports from the Northern States, and a slight decrease in the value of imports from Burma.

The administration of their States by the chiefs was satisfactory. This was notably the case in Tawngpeng and South Hsenwi. Many improvements in communications are projected.

Southern Shan States.

Friendly relations were maintained with the Chinese, French, and Siamese, and perfect quiet prevailed on the frontiers of the Southern Shan States District.

The Lieutenant-Governor visited the Southern Shan States during the year under review, and held a Darbar at Taunggyi, which was attended by the Shan and Karenni chiefs and notables.

The seasons were unfavourable to agriculture. Except in the Yawnghwe Lake Valley, the rice crop was mostly considerably below the average. The public health was indifferent, and cattle disease was generally prevalent. The trade returns showed a decrease in the value of trade, the total for 1908–9 being £938,000, as compared with £1,000,000 in the preceding year. Both exports and imports showed a decrease.

Mining operations were carried on in several States. The minerals worked included silver, lead, antimony, and coal.

The question of Forest administration was carefully considered and discussed with local officers by the Lieutenant-Governor during his visit to Taunggyi. It was decided to proceed gradually with the reservations which have been proposed and to increase the Forest staff as officers and funds become available.

The need for the improvement of the communications, internally and with the plains, has long been felt in the Southern Shan States. The chiefs appreciate the importance of the matter, and are generally willing to co-operate. After the close of the year under review sanction was accorded to the construction of a railway from Thazi to Yawnghwe.

A revision of the tribute payable by the Southern Shan States was effected during the year under review, which resulted in the reduction of the demand from many of the States.

The administration of the several States was generally satisfactory. The chiefs of Yawnghwe, Lai Hka and Kengtūng and the administratrix of Kēng Khām were specially worthy of commendation for the interest they took in improving the administration of their respective States.

Karenni.

The year was uneventful in Karenni. The crops were normal and the health of the people on the whole good. The export trade, however, was decreasing, and the stick-lac industry had almost disappeared. Measures were taken for the better preservation of the teak forests. Mining exploration works were carried on by the Southern Shan States Syndicate during the year.

NATIVE STATES.

## NATIVE STATES.

Hyderabad.

The latest information available regarding the administration of Hyderabad is for the calendar year 1908.

The average rainfall in the State was 33 inches. Except in two or three districts, it was fairly well distributed, and on the whole the season was good. The prices of food-grains ruled high, especially during the latter part of the year. On the 28th September 1908 a sudden and violent flood swept down the River Musi, causing great loss of life and property. The mortality was estimated at betwen 3,000 and 5,000, and not less than 100,000 were rendered homeless. Severe and widespread distress ensued, especially in the city. Relief measures were at once organised, and subscription lists opened, to which contributions were received from all parts of the British Empire. His Highness the Nizam contributed £26,666 from his privy purse for the relief of the sufferers. The services of two British officers were lent to the Nizam's Government for a period of six months—one as special relief commissioner to administer the funds which had been collected, and the other to advise the State authorities as to the best way of rebuilding the ruined portion of the Hyderabad city and opening out a clear waterway for the River Musi.

Arrangements were concluded with the Nizam's Government for the closure of all liquor shops within three miles of the border between the Hyderabad State and the Central Provinces, and also for the gradual reduction of the number of liquor shops in the Cantonment of Secunderabad. The reorganisation of the abkari system of the State

was also taken in hand. Rules were brought into force to regulate the use and sale of cocaine by medical practitioners and chemists in the State. A final agreement was arrived at with the Nizam's Government in regard to the rectification of the boundary of the Secunderabad Cantonment. NATIVE STATES.

The Hyderabad (Deccan) Mining Company received a lease from the Nizam's Government of the Sasti and Paoni Coal Mines. The same company works the Singareni Collieries, from which there was an output of 444,212 tons of coal—an increase of about 30,000 tons compared with the previous year. 7,047 coolies were employed at the mine, compared with 7,868 in the year 1907. Agreements between the Barsi Light Railway Company and the Nizam's Government and between the same company and the Nizam's Guaranteed State Railway Company, relating to the proposed railway extension from Todwala to Latur, were concluded between the parties concerned, and received the sanction of the Government of India. The Nizam's Government decided to grant to the Indian and Colonial Development Company, Limited, a concession for the lighting by electricity of the city and suburbs of Hyderabad.

The estimated income for the year was approximately £3,332,600, and the estimated expenditure £3,451,400. Increased receipts were anticipated chiefly under the heads of Land Revenue, Forest Revenue, and Abkari. On the expenditure side the principal increases were under the heads—Settlement of Old Debts, Imperial Service Troops, Irrigation and Public Works, and General Administration.

Translations of His Majesty the King-Emperor's message on the occasion of the 50th anniversary of the assumption of the Government of India by the Crown were widely distributed in the State.

The rainfall in the Mysore State during the year 1908–9 was neither timely nor well distributed, and the area under cultivation was the smallest in the last five years. The yield per acre, too, was very poor, and a large rise in the prices of food-grains resulted. The difficulties of the situation were increased by a shortage of water supply, a scarcity of fodder, and by an outbreak of cattle disease in an epidemic form in various parts of the State, and distress of a severe type prevailed over an area of about 7,870 square miles with a population of 1,378,000. Prompt and effective relief measures were, however, taken. Expenditure amounting to £8,866 was incurred on the construction of wells for the supply of drinking water, gratuitous relief, supplies of fodder, establishment, &c., and a sum of £14,000 was spent on special allowances to public servants in receipt of small salaries and on public works. The total cost of relief measures thus amounted to £22,933. In addition, loans and advances amounting to £25,333 were given. Mysore.

Despite the unfavourable conditions, the public health improved. The birth-rate increased from 14·98 to 20·31 per mille, while the death-rate declined from 18·82 to 16·26 per mille.

The total receipts during the year under report, excluding the opening balance, amounted to £1,847,300, against £2,013,000 during 1907–8. The expenditure was £1,964,263, against £1,947,500. The cash balance at the beginning of 1908–9 was £724,954, against £660,400 in 1907–8.

The second Dussera Exhibition of Agricultural and Industrial Products was held in October 1908, and was largely attended.

Agricultural banks are proving a failure, and six were wound up during the year. Co-operative societies, on the other hand, have increased in numbers from 27 to 45.

The silk industry, which had declined owing to disease among the silk worms, steadily revived during the year under review, and the number of mulberry trees in the State showed a remarkable increase.

The total value of gold extracted from the State mines during 1908–9 was £2,066,666, against £2,045,100 during the preceding year. The royalty realised—nearly £103,333—was almost the same as in 1907–8. The manganese industry was considerably affected by a fall in prices. Fifty-six thousand tons of ore were extracted in 1908–9, as against 75,000 in 1907–8. The royalty obtained by the Durbar was £900, as against £1,733 in the preceding year. The position of chrome was likewise unsatisfactory. Only 3,000 tons of ore were extracted, as against 11,000 in 1907–8. A part of the previous year's produce was also sold, and the royalty realised was £233, against £40 during 1907–8.

The total expenditure on public works during the year under review was nearly £273,333 from all sources, against £359,100 during 1907–8. The third installation

NATIVE STATES.

of the Cauvery Power Scheme was practically completed during the year, and the full supply of power was given to the mines in July 1908. The gross revenue realised from the scheme during 1908–9 was £116,666, and, deducting the working expenses of £20,000, the net revenue amounted to £96,666.

The Harihar water-works and the electrification of the Mysore City waterworks were completed during the year. A project for the supply of water to the town of Mudgere was also sanctioned. No new railway construction was undertaken during the year.

A Criminal Investigation Department was formed for dealing with serious and organised crime.

The 25th Session of the Mysore Representative Assembly was held on the 8th October 1908, when 226 members attended out of 271 delegated to attend the Session. Four hundred and sixteen subjects of general and local interest are reported to have been discussed.

Among the regulations passed during the year was the Mysore Newspaper Regulation. This regulation, which is essentially preventive in nature and is intended to provide for the exercise of effective control over the public press, has worked satisfactorily, and it has not been found necessary to put its penal provisions into motion.

The progress of the Education Department was satisfactory. The total number of boy schools rose from 4,146 to 4,310, and their strength from 123,000 to 139,000 boys. Female education also made good progress. The number of institutions rose from 259 to 272, and of pupils from 19,000 to 21,400. The number of industrial schools increased from 19 to 20, and their strength from 888 to 1,198.

An important event that took place during the year was the celebration on the 2nd November 1908 of the 50th anniversary of the Royal Proclamation of 1858. The day was observed as a holiday throughout the State, and at all district head-quarters local Darbars were held, to which all the leading citizens were invited. The Royal message was read to the assembled people in English and the vernacular. In commemoration of the event the deserving poor were fed and clothed, and sports and treats arranged for school children.

Baroda.

The latest information available regarding the administration of the Baroda State is that contained in the Durbar's report for the year ending the 31st July 1908.

The rainfall of the year was not altogether satisfactory. Owing to its untimely cessation the crops suffered considerably, and suspensions of revenue were granted to the extent of over £106,666. A sum of £8,400 was advanced for sinking and repairing wells, £19,100 for the purchase of plough bullocks, and £5,000 for building purposes, and for the purchase of seed, manure, grass, &c. The total area under cultivation was 40,67,297 bighas, against 47,42,849 bighas during the year 1906-7. In spite of the partial failure of the monsoon the birth-rate per mille, compared with the previous year, rose from 21·6 to 24·2 and the death-rate fell from 32·8 to 24·4.

Facilities were granted to the Imperial Postal Department for the establishment of additional post offices and letter-boxes in all the districts of the State. The arrangements for the mutual extradition of criminals and co-operation in police matters between the Baroda State and the neighbouring British districts and Native States continued to be satisfactory. A reciprocal arrangement was brought tentatively into force for a period of three years between the State police and that of the Bombay Presidency for the provisional surrender, for purposes of identification, of stolen property or property seized on suspicion.

The scheme for the separation of executive and judicial functions was revised and finally adopted.

During the year under review nine new industrial concerns were started, with an authorised capital of £239,700. These included a bank subsidised by the Durbar, a cotton mill, two dyeing factories, a chrome-leather tanning factory, and the Baroda Tramway Company. The Joint Stock Companies doing business in the State numbered 15, with an aggregate capital of £287,000. Ten co-operative credit societies were registered, making a total of 34 in existence at the end of the year.

The introduction of the scheme of compulsory primary education in the State was completed during the year, and the number of schools under the immediate control of the State Educational Department rose from 1,267 to 1,280. The expenditure incurred in maintaining these institutions, and in awarding scholarships to students studying in foreign countries and in parts of India outside the Baroda State, &c., was £64,674,

the total receipts being £6,190. The corresponding figures for 1906-7 were £52,946 and £6,400. NATIVE STATES.

The total number of students in the different institutions where English is taught was 4,783, against 3,995 in 1906-7. The total number of vernacular schools of all classes in the State was 1,253, against 1,241 during 1906-7. The attendance in these institutions was 104,180, against 99,768 in the previous year.

Various important public works were completed, or were in progress, during the year under review, the expenditure, inclusive of establishment, amounting to about £163,333.

The total length of railway lines open at the end of the year was 249·98 miles.

The following new lines were under construction:—

(*a*) A line from Kosamba to Zankawav;
(*b*) Two extensions of the Mehsana railway system;
(*c*) An extension of the Shedhni-Kadarpur Light Railroad to join the Kheralu-Dabhoda line; and
(*d*) An extension from Kheralu to Dabhoda.

Besides the above, several schemes for new lines were under consideration.

The sanctioned strength of the police, excluding non-effectives, was 4,870, against 4,878 during 1906-7—a proportion of one policeman to every 2·90 square miles of area and one to every 698 of population.

The main source of income is land revenue. The total income and expenditure amounted to £1,054,627 and £1,016,931 respectively, against £1,264,646 and £1,039,200 during 1906-7. The decrease in receipts under the head of Land Revenue amounted to over £171,666 as compared with the figures of the previous year. There were also large decreases under the heads of Customs and Opium.

The following information regarding the Native States in Central India is for the year 1907-8. Central India.

The rainfall of the year was generally unfavourable. The monsoon set in late and ceased early, the fall being generally below the average and unevenly distributed. The abnormally heavy rain in August damaged the makka and jowar crops in many parts of Central India, and its early cessation seriously reduced the area of the rabi crop. The situation in certain parts was, however, relieved by timely rain in January and February 1908, which greatly benefited the tracts which had been brought under rabi. The kharif harvest was generally poor throughout the Agency, except in Bhopal, where the crops were not much affected despite the deficient rainfall. Timely precautions were taken throughout the Agency to meet the threatened famine or scarcity. Relief works were opened at an early date in the Rewa State, where the operations were conducted mostly by the village headmen with the aid of funds supplied by the Durbar. Distress was not much felt in Bundelkhand, owing to the good harvests of the previous year, but wherever relief operations were found to be necessary in this tract, the situation was promptly and thoroughly met. Jhabua, in the Bhopawar Agency, was the only other State in which actual famine relief proved necessary. In Gwalior distress was averted by liberal grants of takkavi, and by extensions of the State's public works' programme. Similar steps were also taken in the States of Dhar and Ali Rajpur, with the result that actual relief measures were not required. Throughout Central India the supply of fodder and water was generally sufficient, and the maintenance of cattle did not present the same difficulties as in recent seasons of inadequate rainfall.

The public health was generally good. Deaths from plague decreased from 12,000 in 1906 to 8,800 in 1907. Inoculation was freely resorted to in Bhopal, where plague was, for a time, present in epidemic form. A hospital for women was opened at Indore during the year under review. The number of hospitals and dispensaries in Central India was 208, against 191 in 1906 and 147 in 1905. The number of persons seeking medical relief is estimated to have increased by about 50,000, whilst the expenditure of the States amounted to over £35,000.

Increased attention was paid to forest conservation, especially in Gwalior, Indore, Rewa, Bhopal, and in the States in the Bhopawar and Bundelkhand Agencies.

The Agency police continued to work satisfactorily. There was a considerable diminution of crime in all the agencies, the records being especially good in the case of Gwalior, Indore, Bhopal, and the Bhopawar Agency. Only 68 dakaitis occurred in Central India during 1907, against 96 in 1906 and 98 in 1905.

NATIVE STATES.

The total outlay on Imperial Public Works was £72,300, against £40,600 during 1906–7. The former amount included an expenditure of £4,400 on irrigation works, £26,568 on civil buildings, £16,000 on communications, £7,880 on establishment, and £15,800 on local fund works.

The report on the Sindh canal project was completed. Considerable attention was paid to irrigation in the Bhopal State. The total length of roads maintained by the Imperial Public Works Department in Central India was 761¼ miles, against 752¾ miles during 1906–7. The net earnings of the Gwalior Light Railways rose from £5,666 in 1905–6 to £8,000 in 1906–7, while the percentage of working expenses to gross earnings fell from 62·88 to 56·68.

The earnings of the other railway lines passing through Gwalior territory also showed an improvement.

Work on the new Daly College buildings at Indore was proceeded with. The total expenditure up to the end of 1907–8 amounted to £16,900, the estimate for the entire scheme amounting to £70,000. The average daily attendance at the Daly College during 1907–8 was 40·93. The health of the boys was on the whole good.

Various excise reforms were introduced by the Durbars on the advice of the Excise Commissioner, whose appointment was created during the year 1906–7.

The leading States in Central India continued to devote attention to their educational departments. The number of village schools in Rewa increased from 32 to 42, whilst the average daily attendance of pupils rose from 1,671 to 2,260.

The Indore State Post Office was amalgamated with the Imperial Post Office with effect from the 1st January 1908.

Many new cotton presses and gins were constructed by private enterprise in the Indore State during the year under review.

The Chiefs of Datia, Maihar, and Khilchipur died during 1907–8.

Their Highnesses the Rajas of Dhar and Dewas (senior branch) were invested with ruling powers.

Rajputana.

The following information regarding the Native States in Rajputana is for the year 1907–8.

Throughout the Agency, except in Bikaner and Kishangarh, the rainfall during the year was scanty and unevenly distributed. But though the prices of food-grains ruled high in most of the States, the condition of the people was generally good and there was no serious crime.

In Bharatpur conditions of scarcity prevailed necessitating the expansion of the ordinary public works programme and the distribution for a period of gratuitous relief. A generous policy was also adopted in the remission of land revenue arrears.

In Dungarpur the kharif crop yielded only 6 annas in the rupee, while the outturn of the rabi harvest was 50 per cent. below the average. No measures of direct relief were, however, required. Takkavi advances were issued liberally; and suspensions and remissions of land revenue were granted to the extent of £970.

In Jaisalmer the average yield of the kharif crop was 2 annas in the rupee, and rabi about 6½ annas. The finances of the State were, however, satisfactory, the year under review having closed with a cash balance of £7,733.

In Alwar both the kharif and rabi harvests were below the normal, and the price of food-grains reached famine rates. Relief was afforded by the suspension of land revenue demands and the distribution of takkavi.

In Dholpur the crops were indifferent, but fodder was sufficient. The area of khalsa land under cultivation showed a decrease from 5,79,350 to 3,98,430 bighas as compared with the previous year. Seasonable winter rains, however, improved the agricultural prospects. The realisations of land revenue were satisfactory and effected without coercive processes.

In Jhalawar the outturn of kharif and rabi crops was below normal, but there was no scarcity or distress.

In Bikaner the area brought under cultivation was 22,42,123 bighas, against 14,57,459 during the preceding year.

The area of land cultivated in the Shahpura Chiefship was 52,827 bighas, as against 55,087 during 1906–7.

In Banswara, owing to the failure of the kharif crop, there was some scarcity in the northern portion of the State, but the situation never became acute, and was met by liberal suspensions of land revenue and takkavi advances. The mortality among cattle was considerable.

In Mewar (Udaipur) the kharif crops in most places were damaged by excessive and continuous rain early in the season, and subsequently by drought. The average

yield of the kharif was from 4 to 5 annas in the rupee. The rabi, however, produced a fair harvest. Fodder was plentiful. The price of foodstuffs was about 50 per cent. above normal. NATIVE STATES.

"In Marwar (Jodhpur), on the other hand, the area brought under cultivation was much in excess of that of the previous year. The yield of the rabi crop exceeded the estimates.

In Alwar a flour mill was started during the year under review. A ginning factory was opened as a private enterprise in the Jhalawar State and four grass and timber depôts were opened in Partabgarh.

In Marwar (Jodhpur) a series of useful reforms in the rates and manner of collection of customs duties was effected.

On the 17th October 1907 the railway from Sanganer to Sawai-Madhopur was completed for traffic. On the 26th February 1908 the Nagda–Muttra railway was opened from Morak to Kota. In the Dholpur State, in March 1908, a light railway from Dholpur to Bari on the 2 feet 6 inches gauge, with a total length of 19·2 miles, was completed and opened for traffic.

One new school was opened in Bharatpur during the year, 16 in Jaipur, nine in Jhalawar, and two in Kishangarh and Mewar, and in Dungarpur and Dholpur girls' schools were started. Nine new schools were opened in the Jhalawar State. In Jodhpur (Marwar) the number of State educational institutions increased from 51 to 53; while the number of unaided schools rose from 184 to 193. A vernacular training school was established for Hindi teachers in Jodhpur city.

The public health was generally good, with the exception of outbreaks of plague in Alwar and Sirohi and malaria in Alwar and Bharatpur.

In the Cooch Behar State the landowning and cultivating classes enjoyed a fairly prosperous season, but, as in the preceding year, the poorer classes were affected by the high price of food-grains. The public health was far from good, the year being a very unhealthy one, and there were severe outbreaks of cholera and small-pox in parts of the State. The most important change in the system of administration in the State during the year was the creation of a separate Legislative Council. The new council includes, in addition to all members of the State Council, five members representing the different classes and creeds of the community. These five members are appointed by His Highness the Maharaja. The new council deals with all matters relating to legislation, which were heretofore dealt with by the State Council. The revenue returns showed a slight decrease, and the expenditure was less than in the preceding year by about £1,900. Bengal.

H.H. the Maharaja paid a visit to England during the year and returned to Cooch Behar on the 4th of January 1909. During his absence from the State the administration was conducted by the Council under his instructions.

When the year opened the two Native States Seraikela and Kharsawan in the Nagpur Division were suffering from scarcity. These conditions soon passed away, and a very favourable agricultural season followed. The public health was generally good. The Seraikela State was administered by its chief, and the Kharsawan State continued under the management of Government owing to the minority of the chief. In the Orissa Tributary Mahals the agricultural outlook was at first poor owing to floods. Conditions improved greatly later in the year, and good rice crops were secured in most of the States. Collection of revenue was made without difficulty, and, except in some of the smaller States, the financial position was sound. The public health was generally fair. The question of forest administration continued to receive careful attention during the year.

Revised sanads were granted to 17 Feudatory chiefs of Orissa. Under the terms of these sanads higher criminal powers were granted to the chiefs of Moharbhanj, Dhenkanal, and Talcher, and to the highest administrative officers of the States of Keonjhar, Nayagarh, and Gangpur. A revision of tribute was effected in the following five States:—Patna, Kalahandi, Sonpur, Bamra, and Rairakhol. The payments fixed were slightly enhanced in all cases. The arrangement will remain in force for 30 years.

The States of Bonai, Hindol, Nayagarh, Rairakhol, and Keonjhar continued under Government management. The Nilgiri State was restored to the administration of its chief at the beginning of the year under review.

The conduct of the hill tribes in the Manipur State during the year 1908–9 was generally satisfactory. There was some unrest amongst the Kukis living in the unadministered tract outside the eastern boundary of the State, and raids were made by them on the Somra villages. A severe epidemic of cholera broke out towards the Eastern Bengal and Assam.

NATIVE STATES.

end of April 1908, and lasted in a virulent form till the end of June. The total number of reported deaths from this disease in the valley during the epidemic amounted to no less than 6·5 per cent. of the population as recorded at the census of 1901. The outbreak is attributed to continued drought. A scheme for conveying water to Imphal from the Maklong and Palok rivers is under contemplation.

The chief of the Hill Tippera State, His Highness Raja Radha Kishore Manikya Bahadur, died on 12th of March 1909 from injuries received on a motor-car accident while on a visit to the Maharaja of Benares. His son, Jubraj Birendra Kishore, was recognised by the Government of India as his successor on the 8th of May 1909. The seasons were generally favourable, trade was brisk, and the people enjoyed a prosperous year. The Appellate Court of Sadar, corresponding to the Sessions Court in a British district, was amalgamated with the Khas Appellate Court, which is now called the Khas Adalat, and has an original as well as an appellate side. The financial condition of the State was satisfactory. The closing balance amounted to about £40,000.

United Provinces of Agra and Oudh.

In the Rampur State there was a partial failure of the spring crops owing to the failure of the monsoon. Conditions improved later in the year, and a good autumn harvest was secured. Scarcity, however, prevailed during a great part of the year. The State was free from plague throughout the year, but the public health was not generally satisfactory. A new sugar factory and a State distillery were erected during the year. There was some increase of crime, which is attributed to the conditions of scarcity. The financial position of the State was satisfactory.

The Tehri State suffered from famine owing to the failure of the monsoon and winter rains. Six grain depôts were established to facilitate the import of grain. Gratuitous relief was given where necessary; reserved forests were thrown open, and relief works started. The public health was not good owing to the prevalence of small-pox, cholera, and malaria. Good work was done by the hospitals and dispensaries. The financial condition of the State was satisfactory. There was a closing balance of about £107,000.

Punjab.

The arrangements for the purposes of the supervision of the Native States in the Punjab remained unchanged during the year under review. The health of the people, on the whole, was good, and agricultural conditions were fairly satisfactory except in the State of Mandi, which suffered from scarcity. In the States of Jind, Bahawalpur, Chamba, and Sirmur a desire was shown to promote the material welfare of the people by an expenditure of accumulated reserves on railways and other works of public utility.

The following administrative changes occurred during the year. In Maler Kotla, Ahmad Ali Khan was installed as Nawab in succession to his father, Nawab Muhammad Ibrahim Khan, who died on the 22nd of August 1908. In Suket, Bhim Sen was installed as Raja in succession to his father, Raja Dusht Nikandan Sen, who died on the 26th of May 1908. In Kalsia, Ravi Sher Singh was installed in succession to his father, Sardar Ranjit Singh, who died in July 1908. During the minority of this chief the administration will be conducted by a council of native gentlemen under the supervision of the Commissioner of the Delhi Division. In Dujana, Khurshed Ali Khan was recognised as Nawab in succession to his cousin, Nawab Muhammad Mumtaz Ali Khan, who died in June 1908.

The administration of all the States proceeded smoothly during the year, except in Mandi, where some friction began to show itself between the people and the Darbar. In the Simla Hill State of Keonthal a financial manager was appointed to administer the income and expenditure of the State, and to arrange for the liquidation of the Raja's debts.

The Raja of Kapurthala spent the summer months of 1908 in Europe. During his absence the business of the State was carried on by the Council.

Central Provinces.

The year was marked by continued progress in the Feudatory States of the Central Provinces, and the relations between the chiefs and the officers of the Local Government were satisfactory. Prices were high at the beginning of the year, but little distress was felt, and when the new crops came into the market conditions became easier. The rice crop was a good one, and though cotton and til suffered in several States, both the spring and the autumn harvests were very fair. The public health was good on the whole, but small-pox, cholera, and malarial fever were prevalent in some of the States. Judicial administration was efficiently carried on, and, apart from an increase in the number of petty offences attributed to scarcity, crime was light. A growing interest was shown in forest management, many public works of utility were completed, and education made a distinct advance.

The following administrative changes occurred during the year:—the Feudatory chiefs of Bastar and Kawardha assumed the administration of their States. The Khairagarh State was taken under Government management, owing to the death of its chief. At the close of the year 10 of the 15 Feudatory States were under their own chiefs, and the remaining five States, Sarangarh, Khairagarh, Chhuikadan, Nandgaon, and Udaipur, were under management. NATIVE STATES.

The following extract from the Report on the Administration of the Bombay Presidency for the year 1908–9 gives a general view of the condition of the Native States having direct political relations with the Bombay Government:— Bombay.

"Such trade as is claimed by any of the Native States fully participated in the "universal decline, but the fact possesses little independent importance. The main "interest of all the States centres in their agriculture, and in this respect they were "no less diversely affected by the season than the widely different parts of the "Presidency of which they are typical. In general, however, the year nowhere "resulted in a marked advance of prosperity, while it was nowhere so unsuccessful "as to cause a serious set-back. The States of South Gujarát and the Konkan for "the most part enjoyed a favourable season, but elsewhere agriculture suffered from "a deficiency of the later rains, in many cases coupled with an excess in the earlier "part of the monsoon. Every State, however, succeeded in raising at least one crop "which was sufficiently good to save the situation, and the high prices which prevailed "throughout the year tended to compensate for any paucity of out-turn. The "plentiful demand for labour was another favourable circumstance; and the absence "of real distress is illustrated by the fact that the only two test-works that were "opened were soon found to be unnecessary. Although, therefore, the smaller "recoveries of interest due to Government from some of the States in Kathiawar "indicate a year somewhat below the normal, more or less improvement over the "previous year's figures is visible in the revenue realisations of a majority of the "States, including even the Sátará Jaghirs and the Southern Marátha Country States, "where the season was, perhaps, least favourable. The outlay on public works "exhibited little variation, but, with few exceptions, the States devoted a considerably "larger expenditure to education, with results which were commonly reflected in the "number of pupils on the rolls. At the end of the year these formed 2·7 per cent. "of the total population, and there was an average of one school to every 26·7 square "miles of Native States territory. The population is still backward in some of the "States of South Gujarát and the North Konkan, but special efforts were made "during the year in the Dángs, Dharampur, and Bánsda to place agriculture on a "firmer basis, and the measures adopted, which included the first introduction of "*tagávi* into the Dángs, were attended by an appreciable degree of success. In many "of the States, in common with the rest of the Presidency, there was some increase "in the number of offences reported, but many of these were of a minor character, "and the circumstance does not appear to indicate any distinct advance in criminality. "The general abatement of plague in the Presidency was also experienced by the "Native States, and was largely responsible for the decrease which appears in the "death-rate of every State except Pálampur, Mahi Kántha, and Jawhár. At the same "time, only Dharampur, Bánsda, and the Sátára Jaghirs were excepted from a "uniform increase in the birth-rate, which was one of the most favourable symptoms "of returning prosperity during the year."

The year was marked by several administrative changes. H.H. the Mir of Khairpur died on the 5th of March 1909, and was succeeded by his son, Imam Baksh Khan Talpur. Other deaths amongst ruling chiefs included those of the Rana Saheb of Porbandar, the Maharana of Danta, and the representative Talukdars of Makdala and Piprala. The chiefs of Baria, the Maharana of Danta, and the Thakors of Khadal and Limbdi were installed on their respective *gadis*. The Thakors of Rayka and Anghad were placed in charge of their talukas upon their attainment of majority, and the chief of Miraj (junior), having finished his education, was invested with the full powers of his State.

The State year in Travancore and Cochin closes on the 15th of August in each year. The information that follows covers the year ended the 15th of August 1908. Madras.

In Travancore the season was generally favourable, but the prices of grains continued to rise. The public health was not altogether satisfactory. Small-pox, in epidemic form, was present in North Travancore. The revenue of the State, exclusive of debt heads, amounted to £702,000, while the expenditure stood at £698,000, as against £678,000 and £692,000 respectively in the preceding year. Excise showed

NATIVE STATES.

an increase of about £6,900, which was mainly on tobacco, while Customs receipts also increased by about £17,000 owing to a revision of the tariff on copra, cocoanut oil, and cocoanuts. The total expenditure on public works amounted to £134,000, as against £123,000 in the preceding year. The expenditure during the year on the Kodaya irrigation works amounted to £29,000, making a total capital outlay on this scheme up to date of £327,600. The total value of the external trade of the State was £2,152,700, as against £2,140,000 in the preceding year. The total expenditure by the State on education amounted to about £37,500, as against £37,000 in the preceding year. A separate department of agriculture was organised during the year.

In Cochin conditions were generally favourable to agriculture, and the public health was satisfactory. The total receipts and disbursements under Service heads amounted to £223,500 and £249,800 respectively, as against £229,000 and £235,000 in the preceding year. A new department of accounts and finance was constituted during the year, and a settled financial policy to be followed in future was drawn up. The amount spent on public works rose from £18,500 to £25,700. The Public Works Department was reorganised, and a separate irrigation branch was created. A scheme for the reorganisation of the Forest Department was also introduced. The area of forest remained unchanged, but an additional 450 square miles were notified for reservation. The Police Department was thoroughly reorganised. Seven new regulations, four of which related to revenue recovery, salt, stamps, and factories were passed into law during the year, and a commission was constituted to inquire and report regarding the relations between landlord and tenant in the State. A new department of agriculture was also constituted. The net expenditure on education amounted to £8,200. The number of schools remained unchanged, but the teaching staff was reorganised.

The season in the Pudukkottai State was not wholly favourable to agriculture, but the area of land under cultivation increased. Revenue collections improved, and considerable progress was made in dealing with the arrears of past seasons. The general health of the people was fair. The police force continued under the management of the Superintendent of Police, Trichinopoly. The disposal of work was good in the criminal courts, and satisfactory in the civil courts. The Forest Department was reorganised and separated from the Salt and Abkari Department during the year. The finances of the State were in a satisfactory condition, the revenue showing a considerable increase, especially under the heads of Land Revenue and Stamps. Elementary education continued to make marked progress. His Highness the Raja of Pudukkottai left his State in March 1909 in order to visit Europe for the benefit of his health. During his absence the administration is carried on by a council.

The harvest in the Banganapalle State was generally good, and the people enjoyed a fairly prosperous year. The Nawab was formally installed by His Excellency the Governor of Madras, in December 1908, on which date the Assistant Political Agent, who had previously been in charge of the administration, was withdrawn.

The Sandur State continued to be administered by the Diwan, under the control of the Political Agent, owing to the minority of the chief. Fair harvests were secured in the State, but towards the end of the year the rainfall was deficient, and scarcity of water was keenly felt. The public health was not good, cholera being prevalent in the summer months. The revenue receipts of the State were considerably enhanced by the large payments made by the General Sandur Mining Company under the terms of their lease. The company exported 21,353 tons of manganese ore during the year.

# BIBLIOGRAPHY OF INDIAN OFFICIAL REPORTS, &c.

(MOSTLY ANNUAL.)

*General.*

Statistical Abstract relating to British India (Parliamentary Paper).
Statistics of British India.

*Administration.*

Administration Reports for each Province.

*Legislation.*

Acts of the Legislative Councils of India, Madras, Bombay, United Provinces, Punjab, Bengal, Burma, and Eastern Bengal and Assam.

*Justice and Police.*

Reports on Civil Justice in each Province.
Reports on Criminal Justice in each Province.
Reports on Police in each Province and in Bombay Town and Island, Calcutta, and Rangoon.
Reports on Jails in each Province.
Reports on Reformatory Schools in each Province.

*Finance.*

Finance and Revenue Accounts of the Government of India.
East India Financial Statement (Parliamentary Paper).
Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
Home Accounts (Parliamentary Paper).
Estimate of Revenue and Expenditure (Parliamentary Paper).
Loans raised in England (Half-yearly Parliamentary Paper).
Loans raised in India (Half-yearly Parliamentary Paper).
Mint Reports for Calcutta and Bombay.
Miscellaneous Financial Statistics.

*Land Revenue, &c.*

Land Revenue Administration Provincial Reports for Lower Provinces (Bengal), Eastern Bengal and Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras.
Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North West Frontier Province.
Land Survey Reports for Madras and Bengal.
Reports on Land Records Department for Bombay, Burma, Bengal, United Provinces, Madras, and Punjab.
Reports on Settlement Operations, Punjab and Madras.
Report on Survey and Settlement Operations, Eastern Bengal and Assam.
Report on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
Report of the Talukdari Settlement Officer, Bombay.
Report on the Punjab Alienation of Land Act.
Provincial Reports on Court of Wards' Estates.

*Taxation and Opium.*

Salt Departments: Reports for Northern India, Madras, Bombay, Sind, Burma, Bengal, and Eastern Bengal and Assam.
Excise Reports for each Province.
Customs Reports for Bengal, Eastern Bengal and Assam, Madras, Bombay, Sind, and Burma.
Stamp Reports for each Province.
Income Tax Reports for each Province.
Provincial Rates Reports for Bengal and Eastern Bengal and Assam.
Reports on Registration for each Province.
Reports on Opium Departments, Bengal and Bombay.

*Agriculture.*

Season and Crop Reports for each Province.
Agricultural Statistics.
Area and Yield of certain Crops.
Report on Production of Tea in India.
Report on Production of Coffee in India.
Reports on Co-operative Credit Societies for each Province.
Report of Annual Conference of Registrars of Co-operative Credit Societies.

*Forests.*

Review of Forest Administration in British India.
Reports on Forest Administration in each Province.

*Mineral Production.*
- Review of Mineral Production (in Records of Geological Survey).
- Report on Production of Coal in India.

*Manufactures.*
- Statistics of British India. (Part I. Industrial.)
- Reports on the working of the Indian Factories Act in each Province.

*Trade.*
- Annual Statement of Trade and Navigation, Foreign and Coasting.
- Review of the Trade of India (Parliamentary Paper).
- Tables of the Trade of India (Parliamentary Paper).
- Provincial Reports on Maritime Trade (including working of Merchandise Marks Act) for Bengal, Eastern Bengal and Assam, Bombay, Sind, Madras, and Burma.
- Returns of Sea-borne Trade (monthly).
- Returns of Land Trade (monthly).
- External Land Trade Reports for Bengal, Eastern Bengal and Assam, Burma, Punjab, North West Frontier Province, Sind, and British Baluchistan.
- Indian Trade Journal (weekly).
- List of Joint-Stock Companies in British India.

*Public Works.*
- Administration Report on Railways (Parliamentary Bluebook).
- Railways and Irrigation Works. Return of Capital Expenditure, &c. (Parliamentary Paper).
- Reports on Public Works: Madras, Punjab, and North West Frontier Province.
- Reports on Financial Results of Irrigation Operations.
- Reports on Irrigation Revenue in each Province.
- Reports of Madras and Bombay Irrigation Departments.

*Post Office and Telegraphs.*
- Post Office Report.
- Report of Indian Telegraph Department.
- Report of Indo-European Telegraph Department.

*Scientific Departments.*
- Report of Survey of India.
- Records and Memoirs of the Geological Survey of India.
- Report on the Meteorological Department.
- Indian Weather Review, Annual Summary.
- Rainfall of India.
- Report on the Progress of Agriculture in India.
- Report of the Agricultural Research Institute and College, Pusa.
- Bulletins of the Agricultural Research Institute, Pusa.
- Memoirs of the Department of Agriculture.
- Agricultural Journal (quarterly).
- Reports of the Departments of Agriculture in each Province.
- Reports on various Agricultural Stations, Experimental Farms, and Botanic Gardens.
- Administration Report of the Civil Veterinary Department in India.
- Reports of the Civil Veterinary Departments for Madras, Bombay, Punjab, Bengal, Eastern Bengal and Assam, and North West Frontier Province.
- Reports of the Forest Research Institute and the Dehra Dun Forest School.
- Forest Memoirs.
- Forest Records.
- Report of the Board of Scientific Advice.
- Reports of Archæological Departments for India and for each Province.

*Education, Literature, and the Press.*
- Education Reports for each Province.

*Local Self-Government.*
- Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City, and Rangoon.
- Reports on District (or Local) Boards or Local Funds for each Province.
- Reports on Port Trusts of Calcutta, Bombay, Madras, Rangoon, and Karachi.

*Vital Statistics.*
- Report of the Sanitary Commissioner with the Government of India.
- Report on Sanitary Measures in India (Parliamentary Paper).
- Reports of the Sanitary Commissioners for each Province.
- Vaccination Reports for each Province.
- Reports on Civil Hospitals and Dispensaries for each Province.
- Reports on Lunatic Asylums for each Province.

*Emigration and Immigration.*
- Calcutta Port Emigration Report.
- Bengal Inland Emigration Report.
- Assam Immigration Report.

*Prices and Wages.*
- Prices and Wages in India.

1079
X1

# STATEMENT

EXHIBITING THE

# MORAL AND MATERIAL PROGRESS AND CONDITION

OF

# INDIA

## DURING THE YEAR 1909-10.

FORTY-SIXTH NUMBER.

INDIA OFFICE

(*Presented pursuant to Act* 21 *&* 22 *Vict. c.* 106, *s.* 53.)

India Office,
31 May 1911.

RICHMOND RITCHIE,
Under Secretary of State for India.

*Ordered, by* The House of Commons, *to be Printed*,
1 *June* 1911.

Excell.

LONDON:
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.
To be purchased, either directly or through any Bookseller, from
WYMAN AND SONS, LTD., FETTER LANE, E.C., and 32, ABINGDON STREET, S.W.;
OLIVER AND BOYD, TWEEDDALE COURT, EDINBURGH; or
E. PONSONBY, LTD., 116, GRAFTON STREET, DUBLIN.

PRINTED BY
EYRE AND SPOTTISWOODE, LTD., EAST HARDING STREET, E.C.,
PRINTERS TO THE KING'S MOST EXCELLENT MAJESTY.

1911.

179. *Price* 1*s.* 2*d.*

134463

# PREFACE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year.

# TABLE OF CONTENTS.


| | PAGE |
|---|---|
| I. ADMINISTRATION AND LEGISLATION: | 1–4 |
| Administration | 1 |
| Legislation | 1 |
| II. JUSTICE AND POLICE: | 5–10 |
| Civil Justice | 5 |
| Crime and Police | 6 |
| Criminal Justice | 8 |
| Jails | 9 |
| III. FINANCE: | 11–19 |
| Form of Accounts | 11 |
| Gross Revenue and Expenditure | 11 |
| Net " " " | 12 |
| Cash Balances | 13 |
| Provincial Finance | 13 |
| Home Charges | 14 |
| Capital Outlay on Public Works | 15 |
| Debt | 15 |
| Currency and Exchange | 16 |
| Banks | 18 |
| IV. LAND REVENUE: | 20–27 |
| Land Tenures | 20 |
| Land Legislation | 21 |
| Revenue Surveys and Settlements and Land Records | 22 |
| Revenue Assessments and Incidence | 23 |
| Collection of the Revenue | 24 |
| Wards' and other Estates | 27 |
| V. REVENUE FROM TAXATION AND OPIUM: | 28–39 |
| Salt | 28 |
| Excise | 31 |
| Provincial Rates | 35 |
| Stamps | 35 |
| Customs | 36 |
| Income Tax | 37 |
| Registration | 37 |
| Opium | 38 |
| VI. AGRICULTURE: | 40–48 |
| Season and Crop Reports | 40 |
| Agricultural Produce | 42 |
| Co-operative Credit Societies | 46 |
| VII. FORESTS | 49–52 |
| VIII. MINERAL PRODUCTION AND MINING: | 53–55 |
| Mineral Production | 53 |
| Mining Concessions | 55 |
| Inspection of Mines | 55 |
| Mining Education, &c. | 55 |
| IX. MANUFACTURES: | 56–60 |
| Industrial Development | 56 |
| Large Industries | 56 |
| Factory Legislation | 59 |
| " Inspection | 59 |
| Patents and Designs | 60 |
| X. TRADE: | 61–65 |
| Foreign Seaborne Trade | 61 |
| Land Frontier Trade | 64 |
| Coasting Trade | 64 |
| Shipping | 64 |
| Freights | 64 |
| Working of the Merchandise Marks Act | 65 |
| Joint Stock Companies | 65 |
| XI. PUBLIC WORKS: | 66–77 |
| General | 66 |
| Railways | 67 |
| Irrigation | 71 |
| Buildings and Roads (Civil) | 75 |
| XII. POST OFFICE AND TELEGRAPHS: | 78–82 |
| Post Office | 78 |
| Telegraphs | 80 |
| Indo-European Telegraph Department | 81 |
| XIII. SCIENTIFIC DEPARTMENTS: | 83–90 |
| General | 83 |
| Board of Scientific Advice | 83 |
| Survey of India | 83 |
| Other Surveys | 84 |
| Meteorological Department | 84 |
| Agricultural Departments | 85 |
| Civil Veterinary Department | 88 |
| Forest Research Institute | 90 |
| Archæological Department | 90 |
| Medical Research Institutes | 90 |
| XIV. EDUCATION, LITERATURE AND THE PRESS: | 91–101 |
| Education | 91 |
| Literature and the Press | 99 |
| XV. LOCAL SELF-GOVERNMENT: | 102–109 |
| General | 102 |
| Municipalities | 102 |
| District and Local Boards | 106 |
| Port Trusts | 108 |
| XVI. CONDITION OF THE PEOPLE: | 110–120 |
| Vital Statistics | 110 |
| Plague | 112 |
| Sanitation | 113 |
| Hospitals, Dispensaries, &c. | 114 |
| Emigration and Migration | 115 |
| Prices | 117 |
| Wages | 118 |
| Famine or Scarcity | 119 |
| General Remarks | 120 |
| XVII. ARMY AND MARINE: | 121–122 |
| Army | 121 |
| Military Works | 122 |
| Marine | 122 |
| XVIII. FRONTIERS AND NATIVE STATES: | 123–133 |
| Frontier States | 123 |
| Native States | 126 |
| APPENDIX—CENSUS OF 1911 | 134–136 |
| BIBLIOGRAPHY OF OFFICIAL REPORTS | 137–138 |


E (2)0.75. 825. 6/11. E. & S.

## Indian Currency and Weights and Measures.

*Currency.*—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are :—

| | |
|---|---|
| Pie | = $\frac{1}{12}$ penny. |
| Pice (3 pies) | = 1 farthing. |
| Anna (12 pies) | = 1 penny. |
| Rupee (16 annas) | = 1*s.* 4*d.* |

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

*Weights and Measures.*—The weights adopted in Government transactions and by the railway companies are as follows :—

| | | | |
|---|---|---|---|
| 1 tola | = 180 grains | | = 11·66 grams. |
| 1 chittak (5 tolas) | = 900 „ | | = 58·32 „ |
| 1 ser (16 chittaks) | = 2½ troy lb. | (or $2\frac{2}{35}$ lb. avoir.) | = 933·10 „ |
| 1 maund (40 sers) | = 100 „ „ | (or $82\frac{2}{7}$ „ „ | = 37·32 kgms. |

# CHAPTER I.

## ADMINISTRATION AND LEGISLATION.

### ADMINISTRATION.

The following were the holders of the most important appointments connected with the administration of India at the end of the year under review :—

*Secretary of State.*—The Right Hon. Viscount Morley of Blackburn, O.M.

*Permanent Under Secretary of State.*—Sir R. Ritchie, K.C.B.

*Parliamentary Under Secretary of State.*—The Hon. E. S. Montagu, M.P.

*Members of the Council of India.*—Sir J. L. Mackay, G.C.M.G., K.C.S.I., K.C.I.E.; Sir W. Lee-Warner, K.C.S.I.; Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir H. S. Barnes, K.C.S.I., K.C.V.O.; Sir F. O. Schuster, Bart.; Sir T. Morison, K.C.I.E.; General Sir C. C. Egerton, G.C.B., D.S.O.; Sir J. D. La Touche, K.C.S.I.; Krishna Gobinda Gupta, C.S.I.; Sir J. Thomson, K.C.S.I.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Sir T. Raleigh, K.C.S.I.

*Governor-General.*—The Right Hon. the Earl of Minto, P.C., G.M.S.I., G.C.M.G., G.M.I.E.

*Members of Council.*—General Sir O'Moore Creagh, V.C., G.C.B. (extraordinary), Commander-in-Chief; Sir H. Adamson, K.C.S.I.; J. O. Miller, C.S.I.; W. L. Harvey, C.I.E.; Sir G. Fleetwood Wilson, K.C.B.; Satyendra Prasanna Sinha.

*Lieutenant-Governors.*—Bengal, Sir E. N. Baker, K.C.S.I.; Eastern Bengal and Assam, Sir L. Hare, K.C.S.I., C.I.E.; United Provinces of Agra and Oudh, Sir J. P. Hewett, K.C.S.I., C.I.E.; Punjab, Sir L. Dane, K.C.I.E., C.S.I.; Burma, Sir H. T. White, K.C.I.E.

*Chief Commissioners.*—Central Provinces, R. H. Craddock, C.S.I.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.

*Governor of Madras.*—Hon. Sir A. Lawley, G.C.I.E., K.C.M.G.

*Members of Council.*—M. Hammick, C.S.I., C.I.E.; Maharaja Sir Venkata Svetachalapati Ranga Rao, K.C.I.E., of Bobbili; J. N. Atkinson, C.S.I.

*Governor of Bombay.*—Sir G. S. Clarke, G.C.M.G., G.C.I.E.

*Members of Council.*—Sir J. W. P. Muir-Mackenzie, K.C.S.I.; J. L. Jenkins, C.S.I.; Mahadev Bhaskar Chaubal.

---

*Constitutional Reforms.*—The Indian Councils Act, 1909, the main provisions of which were summarised in last year's Statement, became law on the 25th May 1909.

*Decentralization.*—The Report of the Royal Commission on Decentralization, referred to in last year's Statement, was still under the consideration of the Government of India at the end of 1909–10.

*Indian Students.*—The Bureau of Information and the Advisory Committee which were established in 1909 for the benefit of Indian students in England were in full operation during the year under review. Further progress was made with the scheme for the establishment of a centre of social intercourse among Indian students and their friends and well-wishers in England.

A lamentable event of the year was the assassination of Lieutenant-Colonel Sir William Curzon Wyllie, K.C.I.E., C.V.O., Political Aide-de-Camp to the Secretary of State, at the Imperial Institute on the 2nd July 1909.

### LEGISLATION.

#### I. In England.

*The Indian Railways Annuities (Sinking Funds) Act*, 1909 (9 Edward 7. c. 22) enables the Trustees of the five Indian Railway Annuities to invest their Sinking Funds in their own "B" Annuities.

*The East India Loans (Railways and Irrigation) Act*, 1910 (10 Edward 7. c. 5), vests the Secretary of State in Council of India with power to raise 25,000,000*l.* for constructing, extending and equipping railways in India, for constructing irrigation works, and for other purposes.

## II. In India.

Between the 1st April 1909 and the 31st March 1910 the following enactments received the assent of the Governor-General of India:—Fifteen Acts passed by the Council of the Governor-General for making laws and regulations, three by the Legislative Council of Madras, two by that of Bombay, four by that of Bengal, one by that of the Punjab, four by that of the United Provinces of Agra and Oudh, seven by that of Burma. Three regulations were passed by the Governor-General in Council on the recommendation of the local Governments of the provinces affected by them, in accordance with the provisions of 33 Viet. c. 33.

The following are the measures referred to:—

### Acts of the Governor-General's Council.

*The Indian Volunteers (Amendment) Act (No. VI. of* 1909) enacts that any member of the Territorial Force, who may be attached to a volunteer corps in India, shall be subject to the provisions of the Indian Volunteers Act during the period he is attached to such corps.

*The Anand Marriage Act (No. VII. of* 1909) is a validating enactment intended to set at rest doubts which might otherwise be raised as to the validity of the marriage rite of the Sikhs called "Anand."

*The Indian Press Act (No. I. of* 1910) provides for the more efficient control over publications in India, whether indigenous or imported, in regard to the dissemination of seditions or objectionable matter. The main divisions of the Act are as follows:—

(I) Control over presses and means of publication; (II) control over publishers; (III) control over the importation into British India and the transmission by the post of objectionable matter; (IV) the suppression of seditious or objectionable newspapers, books, or other documents wherever found.

I. The first of these objects is secured as follows:—

(1) All proprietors of printing-presses making a declaration for the first time under section 4 of the Press and Registration of Books Act, 1867, are required to give security, which may, however, be dispensed with by the magistrate at his discretion. The proprietors of existing presses are required to give security only if and when they are guilty of printing objectionable matter of the description to which the Act applies;

(2) Local Governments may declare such security forfeit where it appears to them that the press has been used for printing or publishing objectionable matter.

When the initial security so deposited has thus been forfeited, the deposit of further security in a larger sum is required before a fresh declaration can be made under section 4 of the Press and Registration of Books Act of 1867, and if thereafter the press is again used for printing or publishing objectionable matter the further security deposited and the press itself may be declared forfeit.

II. Control over publishers of newspapers, the second main object of the Act, is provided for in a similar manner. The keeping of a printing-press and the publishing of a newspaper without depositing security when required are punishable with the penalties prescribed for failure to make the declarations required by sections 4 and 5 of the Press and Registration of Books Act, 1867.

III. The more efficient control over the importation and transmission by post of objectionable matter of the kind described in the Act is given by empowering the customs and post-office authorities to detain and examine packages suspected of containing such matter, and to submit them for the orders of the local Government.

IV. The fourth object of the Act is attained by authorising the local Government to declare forfeit any newspaper, book, or other document which appears to it to contain matter of the prohibited description, and upon such a declaration the Act empowers the police to seize such articles and to search for the same.

*The Indian Paper Currency Act (No. II. of* 1910) is a consolidating enactment repealing and replacing Act III. of 1905. It declares currency notes of certain

denominational values to be legal tender, payable at any currency office, and takes power to make a similar declaration regarding currency notes of other denominations. It also makes certain changes in the system of circles of issue.

*The Indian Penal Code Amendment Act* (*No. III. of* 1910) amends section 75 of the Indian Penal Code so as to enable Courts in British India to recognise, for the purposes of that section, previous convictions by the various Courts or tribunals in the territories of Native States which exercise their jurisdiction under the general or special authority of the Government of India or of a local Government.

*The Indian Companies* (*Amendment*) *Act* (*No. IV. of* 1910) makes provision for the payment of interest out of capital by companies during the period of construction of works or buildings, and grants to joint stock companies the power to re-issue redeemed debentures in certain circumstances.

*The Dourine Act* (*No. V. of* 1910) empowers local Governments to take steps to prevent the spread of dourine in horse-breeding centres.

*The Indian Stamp* (*Amendment*) *Act* (*No. VI. of* 1910) amends the Indian Stamp Act of 1899 in order to increase the duties which are leviable on certain instruments under that Act. The class of documents selected for enhanced taxation are among those on which the previous rates of duty had fallen with comparative lightness.

*The Court Fees* (*Amendment*) *Act* (*No. VII. of* 1910) raises the duty payable on the probate of a will or letters of administration.

*The Indian Tariff* (*Amendment*) *Act* (*No. VIII. of* 1910) alters the Indian Tariff Act of 1894 by increasing, for fiscal purposes, the import duties on liquors, tobacco, silver, and petroleum.

*The Indian Electricity Act* (*No. IX. of* 1910) repeals and re-enacts, with modifications, the Act of 1903. It removes certain inconveniences attaching to the former system of granting licences for supply, and delegates to local Governments, subject to the control of the Governor-General in Council, the power to issue all licences.

*The Indian Museum Act* (*No. X. of* 1910) is a consolidating measure incorporating in one Act the provisions of the Museum Acts of 1876 and 1887. It also alters the constitution of the Board of Trustees of the Indian Museum in order to assign to the chief executive officers of the Museum a position on the Trust.

*The Central Provinces Courts* (*Amendment*) *Act* (*No. XI. of* 1910), passed in amendment of the previous Act of 1904, enacts that the Court of the Judicial Commissioner shall consist of at least three judges, provides for the hearing of important cases in that Court by a bench of two or more judges, and extends the pecuniary jurisdiction of munsifs and subordinate judges.

*The Glanders and Farcy Law Amendment Act* (*No. XII. of* 1910) amends the Acts of 1899 and 1901.

*The Prisons* (*Amendment*) *Act* (*No. XIII. of* 1910) extends to Presidency magistrates the power, formerly restricted to magistrates of the first class, of trying prisoners for offences against prison discipline.

### Acts of the Provincial Legislative Councils.

Madras.—*The Madras District Municipalities* (*Amendment*) *Act* (*No. V. of* 1909) deals with the execution and control of municipal water and drainage works.

*The Arni Jagir Act* (*No. VI. of* 1909) restricts the Jagirdir's powers of alienation in respect of the Arni jagir.

*The Madras Steam-boilers and Prime-movers* (*Amendment*) *Act* (*No. VII. of* 1909) gives effect to the recommendations of an Expert Committee appointed to consider the practical working of the previous Act of 1893.

Bombay.—*The Prince of Wales Museum Act* (*No. III. of* 1909) provides for the erection, maintenance, and management of the Museum built to commemorate the visit paid to Bombay by His Majesty the King (then Prince of Wales) in 1905.

*The Bombay Repealing and Amending Act* (*No. I. of* 1910) supplies a number of modifications in various Acts affecting the Presidency, which it was not considered necessary to deal with by separate enactments.

Bengal.—*The Sambalpur (Delegation) Act (No. IV. of* 1909) empowers the Government of Bengal to delegate to the Board of Revenue certain of its functions under enactments in force in the district of Sambalpur.

*The Bengal Excise Act (No. V. of* 1909) consolidates and amends the Bengal Excise law, which was previously contained in two original and six amending Acts.

*The Calcutta Port (Amendment) Act (No. I. of* 1910) enables the Commissioners of the Port of Calcutta to make such pecuniary provision as may be advisable in the case of any of their officers or servants who may be injured or killed in the execution of their duty.

*The Bengal Municipal (Amendment and Validation) Act (No. II. of* 1910) makes clear the application of the Bengal Municipal Act of 1884 regarding the powers and duties of the Commissioners of certain municipalities.

Punjab.—*The Punjab Courts (Amendment) Act (No. I. of* 1909) invests the Chief Courts of the Punjab with the power, already possessed by the Chartered High Courts and the Lower Burma Chief Court, to revise the order of a single judge passed after a trial by jury.

United Provinces.—*The United Provinces Waterworks (Amendment) Act (No. I. of* 1910) makes two minor amendments in the Act of 1891.

*The Oudh Settled Estates (Amendment) Act (No. II. of* 1910) introduces into the Act of 1900 certain alterations rendered necessary by a Bill subsequently passed as *the Oudh Estates (Amendment) Act (No. III. of* 1910), the object of which was to remove difficulties in the interpretation of the Oudh Estates Act of 1869.

*The United Provinces Excise Act (No. IV. of* 1910) provides for the development and improvement of excise administration in the United Provinces in such a way as to obviate the necessity of appealing to the Legislature in order to deal with every new situation that may arise.

Burma.—*The Burma Vaccination Law Amendment Act (No. I. of* 1909) extends the provisions for compulsory vaccination in the province.

*The Burma Municipal (Amendment) Act (No. II. of* 1909) makes two minor amendments in the Act of 1898.

*The Burma Boundaries Act* (1880) *Amendment Act (No. III. of* 1909) lays down that questions of title are ordinarily not to be decided by Demarcation and Boundary officers under the Act of 1880.

*The Burma Embankment Act (No. IV. of* 1909) deals mainly with the effective provision of labour for urgent work connected with the repair of embankments.

*The Burma Repealing Act (No. V. of* 1909) repeals certain obsolete municipal enactments; and *the Burma Fisheries (Amendment) Act (No. VI. of* 1909) extends the Act of 1905, with necessary alterations, to Upper Burma.

*The Burma Opium Law Amendment Act (No. VII. of* 1909) provides that persons earning their livelihood by methods connected with the illegal manufacture or sale of opium may be placed on security for good behaviour.

## Regulations.

*The Nugur, Albaka and Cherla Laws and Cesses Regulation (No.* 1 *of* 1909) provides for the continuity of revenue administration in those three taluqas, consequent upon their transfer from the Central Provinces to the Madras Presidency.

*The North-West Frontier Province Law and Justice (Amendment) Regulation (No.* 2 *of* 1909) simplifies the legislation relating to insolvency in the province.

*The Ajmer Courts (Amendment) Regulation (No.* 1 *of* 1910) makes a small amendment in the Regulation of 1877.

# CHAPTER II.*

## JUSTICE AND POLICE.

| | |
|---|---|
| CIVIL JUSTICE. | CRIMINAL JUSTICE. |
| CRIME AND POLICE. | JAILS. |

*(For further details see Statistical Abstract for British India, Tables 24 to 42.)*

### CIVIL JUSTICE.

*Bengal.*—In Bengal the number of civil suits instituted rose out of proportion to the number disposed of, so that there was a considerable increase in the number of cases pending at the end of the year. The decline noticeable in 1908 in the number of original suits instituted in the Subordinate Civil Courts was counterbalanced by an increase of 9,279 during the year under review. There was a slight increase in the average duration of contested cases.

*Eastern Bengal and Assam.*—The number of cases in the pending file in Eastern Bengal and Assam continued to rise in spite of a substantial decrease in the number of suits instituted during the year; the total number of cases for disposal, however, was somewhat in excess of that for 1908, owing to the volume of arrears remaining from the previous year. There was some improvement in the average duration of cases.

*North-Western Provinces.*—For legislative purposes the North-Western Provinces and Oudh are united, but inasmuch as Oudh is not subject to the High Court of the North-Western Provinces, the judicial statistics of the two are given separately.

There was a further increase in the number of suits instituted in the North-Western Provinces, the number of cases for disposal being about 11 per cent. more than in the preceding year; while the number disposed of increased in about the same ratio. The average duration of cases remained about the same.

*Oudh.*—In Oudh the number of suits showed an increase of 13 per cent. on that for 1908; the number of disposals also rose, and the pending file decreased. The average duration of cases fell slightly in contested cases.

*Central Provinces and Berar.*—Litigation showed an increase of 16 per cent. in the Central Provinces, and of 41·2 per cent. in Berar, the latter figure being attributable to commercial prosperity and the prospect of good crops. The pending file increased by over 3,000 cases, but it represents a slightly lower percentage of the total number of suits than in 1908. In the matter of duration of cases the Central Provinces returned worse results than in 1908, while Berar continued to show improvement.

*Punjab.*—The number of institutions of civil suits in the Punjab rose by over 21,000, but disposals by the courts increased in a higher ratio, and the pending file for the year under review was appreciably less than that for 1908.

*Bombay.*—There was a slight rise in the total number of civil suits decided during the year in Bombay, but the balance which remained pending was larger than at the end of 1908, and amounted to 23 per cent. of the total number for disposal. The average duration of contested suits fell from 167 to 157 days, that of uncontested suits remaining about the same.

*Madras.*—A fresh increase in litigation in the Madras Presidency led to the creation of two temporary Subordinate Judges' Courts at Guntur and Mangalore, and of three temporary District Munsifs' Courts. The increase affected all the courts in the Presidency, except the District Judges' Courts. It was especially marked in the village courts and the Revenue Courts, with the result that the latter, although the number of their disposals rose, contributed largely to the increase of the pending file. The increase in the number of cases tried before village bench courts was maintained.

* The period covered by this chapter is the year ending 31st December 1909.

*Burma.*—In Burma the decrease in the number of suits instituted in the courts, which was marked in 1908, continued during the year under review, but the corresponding reduction of the pending file was not proportionate. The average duration of cases remained at the same high level.

*North-West Frontier Province.*—There was a marked increase of litigation during the year in the North-West Frontier Province, and all previous records were again passed, every district sharing in the increase, which is attributed to the general prosperity of the rural population. The increase in the number of disposals, however, shows that the courts proved equal to the increased burden thrown upon them. The average duration of cases remained about the same.

*Coorg.*—The number of civil suits instituted in Coorg again increased, and reached the highest figure attained since 1901. The total value rose by nearly 20 per cent. Owing to changes in the *personnel* of the Munsifs, a large increase occurred in the pending file.

## Crime and Police.

*Madras.*—The season was generally unfavourable, and scarcity prevailed almost throughout the Madras Presidency. The prices of food grains, although they fell slightly in 1909, were still excessive; and, in consequence, the volume of crime showed no decrease. The total number of true cases of cognisable* crime rose from 50,047 to 50,278. The number of murders was 620, the highest figure on record. Robberies and thefts increased by 70 and 1 respectively, but there was a slight falling off in the number of dakaities. Few riots of a serious nature occurred during the year under review. The results of detection show no check in the falling off noticeable during the two preceding years; but this must be attributed to the stage of transition through which the Police Department was still passing. The percentage of murders and dakaities detected fell to 19·9 and 17·8 respectively; the proportion of true cases detected from 30·9 to 29·7. The percentage of convictions to cases prosecuted by the police fell from 77 to 75·4. Property lost during the year was valued at £112,971, of which 23·5 per cent. was recovered.

The total sanctioned strength of the police was 32,090. The increase of 6,609 on the figure for the previous year was largely necessitated by the scheme for reorganisation sanctioned during the year. Difficulty in recruiting continued in some districts, and the quality of the recruits was not altogether satisfactory. The conduct of the force showed improvement, and an increased number of rewards were given. The number of casualties was 2,077, as against 1,930 in 1908. The proportion of illiterate constables was 11·2 per cent. The total cost increased by £27,580 to £494,025, mainly owing to the further progress made in reorganisation.

*Bombay.*—In Bombay the total number of cognisable cases reported during the year rose to 34,526, there being increases under all heads of offences, except dakaity and ordinary theft. Investigation was refused by the police in 1,066 cases. Adding the cases pending from the previous year, and deducting cases in which investigation was refused and cases which were pending at the close of the year, decisions were given in 33,708 cases, or 479 more than in 1908. The percentage of convictions to true cases disposed of showed a further regrettable falling off from 47·5 to 44·8. The value of property stolen during the year, in connection with cognisable crime, was estimated at £91,713, a large decrease on the figures for 1908; and there was considerable falling off in regard to the recovery of stolen property, 30·2 per cent., as against 45 per cent. in 1908, being recovered.

The total strength of the police force in the Presidency was 23,997, an increase of 1,199, and the total cost £413,658, an increase of £47,092, due chiefly to various measures of reorganisation. Considerably less difficulty was experienced in recruiting. The number of punishments rose from 2,480 to 3,094, an increase for which the large additions made to the force were mainly responsible; and that of rewards from 5,180 to 6,392. A percentage of 54·7, practically the same as in the preceding year, were able to read and write. Resignations numbered 1,048, as against 979 in 1908. The health of the force showed some improvement. The general situation at the end of the year under review appeared to be more satisfactory than in 1908; and the difficulties attendant upon reorganisation largely account for the disappointing results indicated by the statistics shown above.

* Cognisable offences are those for which the police can arrest without a warrant.

*Bengal.*—In Bengal the police were again confronted with political crime displayed in bomb outrages and dakaities with violence, for which, in many cases, men belonging to the educated classes were responsible. The reluctance of the public to co-operate with the police continued, but showed some signs of abatement owing to the gradual recognition of the general good faith of the force in dealing with political cases. A number of professional gangs were broken up by the agency of the Criminal Investigation Department. With regard to ordinary crime, the number of cognisable offences showed a satisfactory decrease of 6 per cent. The decline was most marked in offences against property, and is attributable to better harvests and to greater activity in proceedings for "bad livelihood." The Police Training College continued to yield good results. Ninety-eight per cent. of the officers, and 35 per cent. of the men were able to read and write.

*United Provinces.*—It is satisfactory to notice that in the United Provinces a rapid recovery was made from the effects of the famine of the two preceding years, and that crime returned to its normal conditions in the year under review. The total volume of crime reported showed a decrease of 15·4 per cent., the fall being greatest in offences against property. The number of dakaities reported fell from 832 to 605, and that of true cases of murder from 555 to 455. A further increase (from 5,015 to 6,291) occurred in the number of cases reported by village headsmen.

With regard to the police, there was a regrettable increase in the number of punishments, for which it is hard to find a satisfactory reason. The percentage of literate members of the force rose from 25·5 to 26·2.

*Punjab.*—The year under review was marked in the Punjab by a decrease in every class of crime, owing partly to a serious epidemic of malaria affecting the activities of the criminal classes, and partly to an improvement in agricultural conditions. The total number of true cases of cognisable crime fell from 44,319 to 40,482. Murders decreased from 435 to 421, and burglaries from 13,700 to 12,604; while the number of dakaities fell from 74 to 36, the latter figure being below the provincial average for the seven years ending with 1908. The work of the Criminal Investigation Department was both important and successful, and there was cordial co-operation between the provincial force and the police of native states. Both the general conduct and the health of the force showed improvement; the proportion of educated men remained at slightly over 30 per cent.

*Eastern Bengal and Assam.*—In Eastern Bengal and Assam there was a slight decrease in the volume of cognisable crime; the percentage of convictions to trials showed some increase, but was not wholly satisfactory. The number of dakaities rose from 141 to 178, the increase being attributed to a growing preference on the part of criminals—stimulated to some extent by the methods of political agitation—of open violence to stealth. Forty of the dakaities reported occurred on rivers; the participation of young men of the well-to-do classes was again noticeable. Co-operation meetings were held in several places for the discussion of topics concerned with the police and public interests.

Although the number of casualties fell the strength of the force remained inadequate. The police and constables' training schools worked satisfactorily. The strength of the military police was slightly increased; their discipline and efficiency continued to be good.

*Central Provinces and Berar.*—Improved economic and social conditions in the Central Provinces and Berar were responsible for a decrease in crime, of which the comparative slightness must be attributed to greater efficiency in reporting and registering offences. Cognisable crime declined, the number of reported offences falling from 32,582 to 30,496. Murders decreased from 255 to 246, and dakaities from 171 to 125; of the latter, the greater part were committed in the early months of the year, and there is reason to believe that the improved patrolling arrangements adopted during the year will continue to have a good effect. The activity of the police in breaking up professional gangs was well maintained. A satisfactory feature of the year was the increased willingness of the public to co-operate with the police. The health of the force showed some improvement; 55 per cent. were recorded as able to read and write.

*Burma.*—In Burma the number of true cases of cognisable crime fell from 42,103 to 38,503, the decrease extending through nearly every class of offence. The statistics for murder, however, show a regrettable increase, and the nature of the dakaities committed was, on the whole, rather more serious than in the preceding year. There was no change in the measure of success achieved by the police in their work.

Village headmen continued to render valuable assistance in the detection of crime and the arrest of offenders. The force again worked under considerable pressure, the total shortage having increased from 864 to 1,041. The conduct of the men was normal; the percentage of those able to read and write remained at 85.

*North-West Frontier Province.*—In the North-West Frontier Province a further increase in crime was recorded, which is regrettable in view of the general improvement in prices, and cannot satisfactorily be attributed to increased activity on the border. The number of true cognisable cases rose from 3,958 to 4,231. Murders increased from 193 to 297, although the number committed by trans-border residents fell from 48 to 42; and the frequency of dakaities, particularly in Dera Ismail Khan, was as marked as it had been in 1908. The percentage of cases convicted to cases tried showed a further falling off from 76 to 71. The prospective efficiency of the force was, however, enhanced by the gratifying results of recruitment in the province; 24 per cent. of the officers and men were literate.

*Coorg.*—The number of cognisable offences reported in Coorg during the year rose slightly, and there was a falling off in the percentage of convictions. The number of punishments inflicted on members of the force showed a further decline. The proportion of literate constables was 91 per cent.

## Criminal Justice.

*Madras.*—In Madras the total number of offences reported showed an increase, which was composed entirely of offences under the Indian Penal Code, there being a slight fall in those reported under special and local laws. The percentage of convictions improved slightly in both classes of cases. The High Court confirmed 35 out of the 72 sentences of death passed by Sessions Courts, and dismissed 88 per cent. of the total number of appeals sent up.

*Bombay.*—The number of offences reported and brought to trial in Bombay showed a slight increase as compared with the previous year; of the total number of offences returned as true, less than half fell under the Indian Penal Code. Fifty-two per cent. of the number of persons brought to trial were acquitted or discharged. Sentences of imprisonment, fine, and whipping exhibited a further decrease. Proceedings in appeal resulted in a reversal of the sentence in 19 per cent. of the cases.

*Bengal.*—There was a further increase in the work of criminal justice in Bengal. The number of persons under trial for offences against the State, however, declined from 57 to 50, of whom 25 were convicted, 23 acquitted or discharged, and 2 remained under trial at the end of the year. Two cases, involving 15 persons, were committed to the High Court for trial by Special Benches under Act XIV. of 1908; the duration of one from the date of commitment was 76 days, while the other had not been disposed of by the close of the year. The 3 persons remaining at the end of 1908 under trial in Midnapur under the Explosive Substances Act (VI. of 1908) were convicted. Three persons, 2 in Calcutta and 1 in Howrah, were prosecuted and convicted under the Newspapers (Incitements to Offences) Act (VII. of 1908), and proceedings, which resulted in one conviction, were instituted under section 108 of the Code of Criminal Procedure against 16 persons (15 in Nadia and 1 in Calcutta) for disseminating seditious matter.

*Eastern Bengal and Assam.*—In Eastern Bengal and Assam the number of offences against the State increased. Of 17 persons under trial for such offences, 10 were convicted, and 7 were acquitted or discharged. Seventeen persons, against 20 in 1908, were proceeded against under section 108 of the Code of Criminal Procedure for disseminating seditious matter. Generally, there was a small decrease in the total number of criminal cases. Three cases, involving 7 persons, were committed to the High Court for trial by Special Benches under Act XIV. of 1908. The average duration of the cases was 78 days.

*Punjab.*—There was a considerable decrease in the figures for reported crime in the Punjab. The percentage of convictions remained about the same. The capital sentence was confirmed by the Chief Court in 103, and commuted in 23, cases. A regrettable feature of the year was the prevalence of perjury on the part of witnesses.

*North-West Frontier Province.*—In the North-West Frontier Province the number of offences returned as true under the Indian Penal Code showed an increase which was not counterbalanced by a slight decrease in offences under local and special laws.

The death penalty was inflicted in 26 cases, as compared with 10 in 1908. The number of references to Councils of Elders rose from 182 to 220.

*United Provinces of Agra and Oudh.*—In the United Provinces there was a further diminution in the volume of crime, the decrease being most marked in offences against property, owing to the improved agricultural conditions of the year. A corresponding decrease appeared in the figures as to punishments; the number of death sentences declined from 161 to 124. The percentage of convictions fell slightly.

*Coorg.*—There was an increase in the number of criminal cases brought to trial in Coorg, while the percentage of convictions diminished. The proportion of successful appeals continued to be low.

*Central Provinces and Berar.*—In the Central Provinces the statistics are indicative of increased prosperity. There was a decrease in the total number of offences reported, and in particular of offences against property, while cases arising from disputes and from contempt of authority were more frequent. In two cases of offences against the State pleaders and editors of newspapers were convicted and sentenced to pay heavy fines. The percentage of whipping to the number of cases in which it might have been inflicted decreased from 38·9 to 24·6. There was a slight fall in the percentage of convictions.

*Burma.*—The number of offences dealt with by the Courts in Burma showed a slight decrease in comparison with the figures for 1908, and reverted approximately to the level shown in the statistics for 1907. The record for the year does not appear to call for special comment. Provision was made for the engagement of pleaders at Government expense on behalf of persons accused of murder and too poor to defend themselves.

## JAILS.

The variations of the jail population in the whole of India during the last five years are shown in the following table :—

| —— | 1909. | 1908. | 1907. | 1906. | 1905. |
|---|---|---|---|---|---|
| Jail population of all classes on 1st January - | 103,784 | 101,336 | 99,065 | 98,244 | 93,781 |
| Admissions during the year - - - | 489,051 | 520,377 | 459,288 | 480,098 | 464,660 |
| Aggregate - - - | 592,835 | 621,713 | 558,353 | 578,342 | 558,441 |
| Discharged during the year from all causes - | 489,481 | 517,930 | 457,012 | 479,280 | 460,202 |
| Jail population on 31st December - - | 103,354 | 103,783 | 101,341 | 99,062 | 98,239 |
| Convict population on 1st January - - | 91,819 | 89,457 | 89,035 | 88,344 | 85,034 |
| Admissions during the year - - - | 160,391 | 173,175 | 153,759 | 163,956 | 161,783 |
| Aggregate - - - | 252,210 | 262,632 | 242,794 | 252,300 | 246,817 |
| Released during the year - - - | 157,076 | 168,599 | 160,439 | 160,022 | 155,220 |
| Casualties, &c. - - - - - | 3,528 | 3,629 | 2,893 | 3,246 | 3,245 |
| Convict population on 31st December - | 91,606 | 90,404 | 89,462 | 89,032 | 88,352 |

A decrease in the number of prisoners admitted to jail in the course of the year occurred in all provinces except Burma, Eastern Bengal and Assam, and Bombay, and was most marked in Bengal. The daily average number of prisoners fell by about 2,000.

Over one half of the total number of convicts received in jails during the year came from the classes engaged in agriculture or cognate pursuits. More than 135,000 were illiterate. The number of previously convicted prisoners fell by about 3,500, and there was a decrease of more than 100 in the number of youthful offenders. The following statistics show, in round figures, the nature and length of the sentences imposed during the year :—Not exceeding one month, 45,000; above one month and not exceeding six months, 60,000; above six months and not exceeding one year, 29,000; above one year and not exceeding five years, 20,000. The remainder were major sentences, viz. :—2,377 for terms above five and not exceeding ten years; 193 for terms exceeding ten years; 1,761 to transportation beyond seas; and 626 to death.

Notwithstanding the decrease in the average daily strength, the number of offences committed by convicts rose slightly, and there was a remarkable increase of about 11,000 in serious offences dealt with by major punishments. The figures for the different provinces are given in the following table :—

| Province. | 1909. | | | 1908. | | | 1907. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. |
| Madras - - - | 10,737 | 27 | 13,715 | 10,517 | 122 | 13,038 | 10,043 | 24 | 11,915 |
| Bombay - - - | 7,535 | 47 | 21,641 | 7,913 | 33 | 20,296 | 7,538 | 15 | 15,303 |
| Bengal - - - | 15,066 | 17 | 32,478 | 14,462 | 37 | 28,715 | 13,632 | 26 | 25,707 |
| United Provinces - - | 23,944 | 4 | 35,058 | 25,363 | 14 | 37,265 | 21,710 | 10 | 39,549 |
| Punjab - - - | 10,514 | 61 | 51,867 | 10,766 | 56 | 56,892 | 10,216 | 38 | 44,105 |
| Burma - - - | 12,954 | 24 | 37,281 | 13,164 | 22 | 40,878 | 13,009 | 21 | 38,463 |
| Eastern Bengal and Assam - | 6,868 | 33 | 6,576 | 6,884 | 44 | 6,954 | 7,173 | 41 | 7,247 |
| Central Provinces and Berar - | 3,833 | 25 | 18,405 | 3,536 | 16 | 9,975 | 2,945 | 26 | 9,609 |
| North-West Frontier Province | 974 | 1 | 1,169 | 1,040 | 2 | 1,371 | 960 | — | 1,401 |
| Coorg - - - - | 74 | 2 | 60 | 81 | — | 17 | 80 | 2 | 50 |
| | 92,499 | 241 | 218,250 | 93,726 | 346 | 215,401 | 87,306 | 203 | 193,349 |

The total number of corporal punishments showed a decrease on the figures for the previous year. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 8,652 as compared with 6,842 in the preceding year.

Total expenditure fell from £579,075 to £559,918, and total cash earnings rose from £91,298 to £103,996; there was, consequently, a decrease of £32,168 in the net cost to Government. Excluding Coorg, the provinces in which the average cost of maintenance was highest were Eastern Bengal and Assam, Bengal, and Bombay.

The general improvement in the conditions influencing the public health was not on the whole reflected in the statistics for the health of prisoners during the year under review. It may be remembered, however, that the effects of returning prosperity take some little time to reach the classes from which convicts are chiefly recruited, and also that certain symptoms, such as the heavy fall in infant mortality that usually follows a year of depression, tend to lower the general death-rate, while they do not affect the prison population. The prison death-rate fell from 24·17 to 22·85, the decrease extending through every province except Burma, the Punjab, and the North-West Frontier Province. The number of cases of malaria showed a further decline. Cases of tubercle of the lungs increased markedly in those provinces which had suffered most from the epidemic of malaria in the preceding year. The former disease, with dysentery and pneumonia, was among the most common causes of death.

*Penal Settlement at Port Blair.*—The convict population of the Andamans at the end of the year 1909–10 was 12,547, being 758 less than at the end of the previous year; the decrease being due, among other causes, to a very considerable rise in the number of deaths, which is engaging the attention of the Government of India. The number of convicts received from India and Burma during the year was 767, as against 626 in 1908–9. There were 71 escapes, and 49 recaptures; the corresponding figures for the preceding year were 55 and 31. There was an increase in the percentage of offences, and the number of corporal punishments rose from 36 to 40. The net cost of the Settlement was £89,515, and the net cost of each convict about £7, against £116,379 and £8, respectively, in the previous year. The estimated value of jail manufactures rose from £32,876 to £32,901. The numbers of the police force during the year were 29 below sanctioned strength. Discipline was on the whole good. The percentage of illiterate men in the force was 55. There were seven schools in the Settlement during the year, the same number as in the previous year.

# CHAPTER III.

## FINANCE.


| | |
|---|---|
| Form of Accounts. | Home Charges. |
| Gross Revenue and Expenditure. | Capital Outlay on Public Works. |
| Net Revenue and Expenditure. | Debt. |
| Cash Balances. | Currency and Exchange. |
| Provincial Finance. | Banks. |


*(For further details, see Statistical Abstract for British India, Tables 44 to 89 and 97.)*

### Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees: the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the facts that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee are included in a single line under the head of Exchange.

### Gross Revenue and Expenditure.

The Gross Revenue and Expenditure of British India in 1908–9 and 1909–10 were as follows:—

| | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Revenue - - - - - | 69,761,535 | 74,593,495 |
| Expenditure - - - - - | 73,499,245 | 73,986,854 |
| | Deficit - £3,737,710 | Surplus - £606,641 |

In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, with the one exception that the working expenses of railways are treated not as expenditure but as a deduction from Revenue. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which the interest charges as well as the working expenses of the Railways, the interest charges and working expenses of Irrigation Works, the cost of the cultivation and manufacture of Opium, and the charges against other revenue-earning departments (excluding cost of collection) are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

## NET REVENUE.

| | 1908-9. | | 1909-10. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Land Revenue, &c.: | | | | | | |
| Land Revenue | 19,005,038 | | 20,554,980 | | +1,549,942 | |
| Forest | 1,691,865 | | 1,728,885 | | + 37,020 | |
| Tributes from Native States | 387,557 | | 389,355 | | + 1,798 | |
| | | 21,084,460 | | 22,673,220 | | +1,588,760 |
| Opium: Net Receipts | — | 4,645,113 | — | 4,195,614 | — | *— 449,499* |
| Taxation: | | | | | | |
| Salt | 3,008,703 | | 3,054,647 | | + 45,944 | |
| Stamps | 4,293,955 | | 4,496,267 | | + 202,312 | |
| Excise | 6,313,779 | | 6,462,226 | | + 148,447 | |
| Provincial Rates | 532,976 | | 538,300 | | + 5,324 | |
| Customs | 4,725,083 | | 4,855,982 | | + 130,899 | |
| Income Tax | 1,544,576 | | 1,546,206 | | + 1,630 | |
| Registration | 429,975 | | 429,325 | | *— 650* | |
| | | 20,849,047 | | 21,382,953 | | + 533,906 |
| Commercial Undertakings: | | | | | | |
| Post Office | *— 71,133* | | *— 353* | | + 70,780 | |
| Telegraph | *— 49,976* | | *— 89,582* | | *— 39,606* | |
| Railways | *—1,242,250* | | 824,922 | | +2,067,172 | |
| Irrigation | 608,823 | | 606,300 | | *— 2,523* | |
| | | *— 754,536* | | 1,341,287 | | +2,095,823 |
| Mint | — | *— 89,475* | — | *— 17,805* | — | + 71,670 |
| Exchange | — | *— 34,437* | — | 44,481 | — | + 78,918 |
| Total Net Revenue £ | — | 45,700,172 | — | 49,619,750 | — | +3,919,578 |

## NET EXPENDITURE.

| | 1908-9. | | 1909-10. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Debt Services (excluding amounts charged under Railway Revenue Account and Irrigation). | — | 979,507 | — | 930,702 | — | *— 48,805* |
| Military Services: | | | | | | |
| Army | 18,314,327 | | 17,923,453 | | *— 390,874* | |
| Marine | 351,509 | | 377,697 | | + 26,188 | |
| Military Works and Special Defence Works. | 937,152 | | 811,173 | | *— 125,979* | |
| | | 19,602,988 | | 19,112,323 | | *— 490,665* |
| Collection of Revenue | — | 6,026,572 | — | 6,021,503 | — | *— 5,069* |
| Civil Services: | | | | | | |
| Civil Departments | 13,342,704 | | 13,039,893 | | *— 302,812* | |
| Miscellaneous Civil Charges | 4,299,871 | | 4,146,287 | | *— 153,584* | |
| Civil Works (including Railways charged to Provincial or Local Revenues). | 4,208,404 | | 3,868,365 | | *— 340,039* | |
| | | 21,850,979 | | 21,054,545 | | *— 796,434* |
| Famine Relief and Insurance | — | 1,645,179 | — | 1,000,000 | — | *— 645,179* |
| Provincial Adjustments: | | | | | | |
| 1. Charge against Revenue of the year arising from increase of Provincial Balances. | — | — | — | 894,036 | — | + 894,036 |
| 2. Diminution of the Charge against Revenue of the year, owing to Expenditure being met from Provincial Balances. | — | *— 667,343* | — | — | — | + 667,343 |
| Total Net Expenditure charged against Revenue. | — | 49,437,882 | — | 49,013,109 | — | *— 424,773* |
| Surplus (+) or Deficit (−) | — | *—3,737,710* | — | + 606,641 | — | +4,344,351 |

Thus there was in 1909–10, as compared with 1908–9, an increase of net revenue of £3,919,578 and a decrease in net expenditure of £424,773. Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government of India and in the Explanatory Memorandum by the Secretary of State. It will be sufficient here to refer only to the more important facts specially affecting the revenue and expenditure of 1909–10.

*Land Revenue.*—In 1908–9 the partial failure of the rainfall adversely affected the returns. The improved conditions in 1909–10 accelerated the collection of famine arrears in nearly all the provinces, while the revenue was also increased by purchases of proprietary right in the Chenab Canal Colony, and by the extension of cultivation and an excellent rice crop in Burma.

*Opium.*—In accordance with arrangements with the Chinese Authorities (*see* Parliamentary Paper, Cd. 3881 of 1908), the number of chests of opium exported from India has been limited by the Government of India since 1908. The precise conditions of the agreement in this respect are described in Chapter V. (*see* page 39). The decrease in the revenue was not, however, proportional to the decrease in the exports; for owing to the increased demand in China for the reduced supplies of Indian opium an average price of Rs. 1,612 per chest of Bengal opium was realised at the Calcutta auctions instead of Rs. 1,350, as estimated in the Budget, while the payments in respect of pass fees on Malwa opium also largely exceeded the estimate owing to the receipt of duty from traders anxious to secure priority in future shipments. As the result of these abnormal conditions the net opium revenue in 1909–10 exceeded the original forecast by £881,300.

*Railways.*—In 1908–9, owing to bad harvests, commercial depression, and other causes, the railway revenue account showed (for the first time since 1898–9) a net charge, amounting to £1,242,250. With a return to more normal conditions in 1909–10 a net receipt of £824,922 has been realised.

*Military Services.*—It will be observed that the net charges in 1909–10 were lower than those incurred in the previous year by £490,665. Substantial reductions occurred in respect of home stores and compensation for dearness of food and forage.

## Cash Balances.

The following statement shows the amount of the cash balances, and the extent to which they were increased or reduced by the transactions of the year :—

| | On 1st April | | | Increase or Decrease. | |
|---|---|---|---|---|---|
| | 1908. | 1909. | 1910. | In 1908–9. | In 1909–10. |
| | £ | £ | £ | £ | £ |
| In India - - - - | 12,851,723 | 10,235,827 | 12,295,428 | *−2,615,896* | +2,059,601 |
| In England - - - | 5,738,489 | 8,453,715 | 15,809,618 | +2,715,226 | +7,355,903 |
| Total - - £ | 18,590,212 | 18,689,542 | 28,105,046 | + 99,330 | +9,415,504 |

## Provincial Finance.

Under the system of decentralisation of finance, begun by Lord Mayo in 1870 and subsequently developed by successive stages, the Government of India assigns to the Provincial Governments a fixed share of the revenue collected by them under certain heads. From the revenue so assigned the Provincial Governments are required to meet the whole of the expenditure within their respective provinces under certain heads, and a portion of the expenditure under other heads. The revenue retained by the Government of India for its own purposes and for meeting the expenditure incurred by the Secretary of State in England is described in the accounts as Imperial, and that which is assigned to the Provincial Governments is described as Provincial. The expenditure is similarly classified. The Provincial Settlements, by which the classification into Imperial and Provincial of the various items of revenue and expenditure and the ratio of division of the divided heads are governed, have been placed on a quasi-permanent basis with the object of giving to the Provincial Governments as large an interest as possible in the careful collection of revenue and in economy of expenditure. The principal heads of revenue which are wholly Imperial are Opium, Salt, Customs, Post Office, Telegraph, Mint, Exchange, and Railways; the principal divided heads being Land Revenue, Irrigation, Stamps, Excise, Assessed Taxes, and Forests. On the expenditure side of the accounts the charge for Military Services, Debt Services, and the charges under certain minor heads (Territorial and Political Pensions, Ecclesiastical, &c.) are entirely Imperial; "General Administration" is divided; most other important heads of expenditure are provincial.

The net revenue of 1908–9 and 1909–10 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows :—

| — | 1908–9. | | | 1909–10. | | |
|---|---|---|---|---|---|---|
| | Imperial. | Provincial. | Total. | Imperial. | Provincial. | Total. |
| | £ | £ | £ | £ | £ | £ |
| Net Revenue - | 25,968,321 | 19,731,851 | 45,700,172 | 29,218,939 | 20,400,811 | 49,619,750 |
| Net Expenditure - | 29,706,031 | 19,731,851 | 49,437,882 | 28,612,298 | 20,400,811 | 49,013,109 |

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. In 1908–9 the Provincial Governments spent £667,343 from their balances ; in 1909–10 they added to their balances the sum of £894,036.

*Contribution by each Province towards Expenditure of the Central Government.*

The following table shows for each province separately the amount by which the total revenue collected therein (whether classified in the accounts as Imperial or Provincial) exceeds or falls short of the total expenditure incurred therein, and thus indicates the extent to which each province contributes towards the expenditure of the Government of India and the Secretary of State, or draws upon the general revenues :—

| Provinces, &c. | 1908–9. | | 1909–10. | |
|---|---|---|---|---|
| | Excess of Revenue. | Excess of Expenditure. | Excess of Revenue. | Excess of Expenditure. |
| | £ | £ | £ | £ |
| Bengal - - - - - - | 6,549,909 | — | 7,111,235 | — |
| Eastern Bengal and Assam - - | 1,093,947 | — | 957,801 | — |
| United Provinces - - - | 2,022,349 | — | 3,256,201 | — |
| Punjab - - - - - | 1,328,853 | — | 1,674,449 | — |
| Burma - - - - - | 2,193,780 | — | 2,238,439 | — |
| Central Provinces and Berar - - | 194,749 | — | 325,362 | — |
| Madras - - - - - | 4,643,458 | — | 4,705,314 | — |
| Bombay - - - - - | 5,444,367 | — | 4,773,105 | — |
| North-West Frontier Province - - | — | *323,253* | — | *309,456* |
| India, General - - - - | — | *8,562,450* | — | *5,714,100* |
| England - - - - | — | *18,323,419* | — | *18,411,709* |
| Net result - - - | Deficit *£3,737,710* | | Surplus £606,641 | |

## Home Charges.

The net expenditure in England chargeable to revenue, as shown in the preceding table, may be classified under the following principal heads :—

| — | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Interest and management of debt, and payment of interest and annuities on account of railways and irrigation works. | 10,196,960 | 10,647,088 |
| Payments in connection with Civil Departments in India - - | 158,556 | 125,644 |
| India Office (excluding pensions) - - - - - | 209,284 | 201,860 |
| Army and marine effective charges - - - - - | 1,096,688 | 979,536 |
| Stores of all kinds charged against revenue - - - - | 1,281,998 | 1,059,432 |
| Furlough allowances - - - - - - - | 936,773 | 965,790 |
| Non-effective charges (pensions and gratuities) - - - - | 4,443,160 | 4,432,359 |
| Total - - - - £ | 18,323,419 | 18,411,709 |

## Capital Outlay on Public Works.

The total capital outlay on railways and irrigation works, during the two years, was as follows :—

| | 1908–9. | 1909–10. |
|---|---|---|
| Amount supplied by State borrowing or from the Cash Balances, without being charged against the Revenue of the year :— | £ | £ |
| State Railways | 5,209,621 | 3,862,191 |
| Irrigation Works | 983,489 | 1,052,349 |
| Amount met by Debenture Stock issued by Railway Companies | 4,278,547 | 2,459,426 |
| Amount defrayed from Revenue : | | |
| Provincial and local Railways | 415 | 1,245 |
| Preliminary Railway expenditure not originally charged to construction | 30,269 | — |
| Protective Railways | 70 | 12,015 |
| Protective Irrigation Works | 403,030 | 432,889 |
| Other Irrigation Works* | 76,053 | 11,500 |
| Total Direct Outlay by the State | 10,981,494 | 7,831,615 |
| Outlay by companies guaranteed or subsidised by Government | 556,748 | 2,063,077 |
| Branch lines not on firm guarantee | 5,864 | 54,905 |
| Total Capital Outlay on Railways and Irrigation £ | 11,544,106 | 9,949,597 |

* Excluding capital outlay on the minor works, which is met from revenue.

## Debt.

*Amount of Debt.*—The total debt of India on the 1st April 1909 was :—

| | £ |
|---|---|
| In England | 166,973,369 |
| In India, Rs. 1,34,56,60,505, equivalent at 1*s.* 4*d.* the rupee to | 89,710,700 |
| Total | £256,684,069 |

1909–10.—In England £1,000,000 Sterling Bills were issued in April 1909 for 12 months at an average price of £97 16*s.*, and £2,500,000 in June, also for 12 months, at an average price of £96 18*s.*, in replacement of bills falling due. A rupee loan of 2½ crores (£1,666,700) was issued in India in July 1909, at an average price of Rs. 93·94 per cent. In December £2,500,000 Sterling Bills were issued for 12 months at an average price of £96 16*s.* 2*d.* in replacement of a like amount of bills falling due. In Januury 1910 an issue of £7,500,000 India 3½ per cent. stock was made in England at a fixed price of £96 10*s.* per cent. to provide funds for railway construction in 1910–11, for granting advances to Indian railway companies, and for the discharge of certain debentures issued by the Bombay, Baroda and Central India and the Madras Railway Companies.

The total debt outstanding on 31st March 1910 was as follows :—

| | £ |
|---|---|
| In England | 176,105,911 |
| In India, Rs. 1,36,84,33,105, equivalent at 1*s.* 4*d.* the rupee to | 91,228,874 |
| Total | £267,334,785 |

*Classification of the Debt.*—The total debt is classified in the accounts as (1) Public Works Debt (2) Ordinary Debt. The amount entered as belonging to the former category is the equivalent of the total capital expenditure which has been incurred by the State on public works, together with the amount advanced to railway companies for capital expenditure ; the "Ordinary Debt," consists of the remainder of the debt. In any year in which, owing to the use of surplus revenue

or deposits for the construction of public works, the capital expenditure of the year exceeds the amount of debt incurred in the year, the effect of this system of classification is to cause a decrease to be shown in the amount of the Ordinary Debt.

The classification of the debt outstanding on the 31st March 1909 and the 31st March 1910 was as follows:—

| | 1909. | 1910. |
|---|---|---|
| (*a*) Permanent debt:— | £ | £ |
| Debt for railways | 182,213,141 | 186,517,746 |
| Debt for irrigation works | 30,738,991 | 32,256,945 |
| Total of public works debt | 212,952,132 | 218,774,691 |
| Balance being ordinary debt | 37,731,937 | 42,560,094 |
| Total permanent debt on 31st March | 250,684,069 | 261,334,785 |
| (*b*) Temporary debt incurred on security of India bills:— | | |
| Debt for railways | 1,500,000 | 1,500,000 |
| Debt for general purposes | 4,500,000 | 4,500,000 |
| Total debt (permanent and temporary) on 31st March | £256,684,069 | £267,334,785 |

Under the East India Loans (Railways and Irrigation) Act, 1910, the Secretary of State in Council was empowered to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works. The grant of fresh borrowing powers was required owing to the fact that the powers granted by previous East India Loans Acts were becoming exhausted.

## Currency and Exchange.

*Currency Legislation.*—Up to 1893 the standard of value in India was silver, the rupee (180 grains of silver, eleven-twelfths fine) and the half rupee being full legal tender for the payment of debts, and the mints being open to the receipt from the public of silver for coinage without limit. From 1871 to 1893 the exchange value of the rupee (*i.e.*, the sterling rate at which bills of exchange payable in India were sold) fell almost continuously, the fall being due to the decline in the price of silver, by which the value of the rupee was necessarily governed. Apart from its effect on trade the continual fall in the rupee caused serious difficulties to the Government, because, its revenue being collected in rupees, it is compelled to provide for the greater part of its sterling payments by the sale in London for sterling of bills of exchange and telegraphic transfers payable in rupees in India, and the number of rupees required for defraying any given amount of sterling expenditure increased with each fall in the sterling rate at which bills were sold. In the period from 1871 to 1893 the rate fell from about 2*s.* the rupee (ten rupees to the £) to about 1*s.* 3*d.* the rupee (sixteen rupees to the £). In view of the embarrassment arising from this depreciation in the standard of value it was decided in 1893, in accordance with the recommendation of Lord Herschell's Committee, that silver should no longer be coined on presentation by the public, but the right was given to the public to demand from Government rupees in exchange for gold at the rate of 15 rupees for £1 without limit of amount. Silver thus ceased to be the standard of value in India (though it is still used as before as the chief material of currency); and the exchange value of the rupee ceased to coincide with the price of silver. In 1898 a committee was appointed, under the chairmanship of the late Lord Wolverhampton, then Sir Henry Fowler, to consider certain proposals made by the Government of India for the completion of the policy adopted in 1893. Sir Henry Fowler's Committee reported in 1899, and recommended that the decisions reached on the recommendations of Lord Herschell's Committee in 1893 should be maintained, and that the English sovereign should be declared legal tender in India at the rate of one sovereign to fifteen rupees (*i.e.*, 1*s.* 4*d.* to the rupee). These recommendations were accepted by the Government. Since 1898–9 the exchange value of the rupee has remained steady at about 1*s.* 4*d.*

*Gold Standard Reserve.*—In accordance with a recommendation made by Sir Henry Fowler's Committee it was decided that, with effect from the 1st April 1900, the net profit from the coinage of rupees should not be treated as revenue, but should be held as a special reserve, and sent to England for investment in sterling securities. Up to 1906 practically the whole amount was remitted to England and applied to the purchase of British Government securities, the interest realised being added to the fund and invested, but in that year it was decided that a portion of the reserve should in future be held in silver in India. In 1907–8 and 1908–9 in consequence of a further decision half the profits on coinage were applied to capital expenditure on railways. The annual amount of the profits on coinage, in each year from 1900–1 to 1908–9 credited to the reserve under the arrangements above described, is shown in the marginal table.

| | £ |
|---|---|
| 1900–1 | 3,031,294 |
| 1901–2 | 415,100 |
| 1902–3 | 264,028 |
| 1903–4 | 2,627,575 |
| 1904–5 | 1,790,380 |
| 1905–6 | 3,677,880 |
| 1906–7 | 4,014,426 |
| 1907–8 | 1,123,603 |
| 1908–9 | 51 |

No coinage was undertaken from purchased silver in 1909–10, but during the year the sum of £25,190, being arrears of profit on the coinage of previous years, was credited to the fund.

The constitution of the reserve on the 31st March 1910 was as follows:—

| | £ |
|---|---|
| Sterling securities (at cost price) | 13,219,217 |
| Silver (coined rupees in India) | 2,534,302 |
| Cash in England (placed by the Secretary of State in Council at short notice) | 3,010,528 |
| Total | £18,764,047 |

*Exchange and Remittance.*—During the years 1908–9 and 1909–10 the sale by the Secretary of State of bills and telegraphic transfers on India was as follows:—

| | | | |
|---|---|---|---|
| 1907–8 | £15,307,061 | at an average rate of | 1*s.* 4·029*d.* per rupee. |
| 1908–9 | £14,144,545 | „ „ | 1*s.* 3·93*d.* „ |
| 1909–10 | £27,444,609 | „ „ | 1*s.* 4·041*d.* „ |

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports. In 1907–8 and 1908–9 the demand for the Secretary of State's bills and transfers was unusually small, being affected by several causes, amongst which may be mentioned the exceptionally large imports, the check to the growth of exports due to the partial failure of the autumn monsoon, the reduced price of jute (a very important article of export), and the stringency which prevailed during a part of this period in the London money market. The normal commercial demand for remittances to India practically ceased for a time, and special facilities for remittance in the opposite direction were required in order to enable the balance of trade to be adjusted. In the special circumstances the Secretary of State authorised the Government of India to invite applications in India for sterling bills on London at a fixed rate of 1*s.* $3\frac{29}{32}$*d.* the rupee. Bills were sold from week to week during the period between 25th March and 11th September 1908, the total amount sold being £8,058,000. The bills were met in London by the Secretary of State from the proceeds of the realization of a portion of the securities held on behalf of the Gold Standard Reserve, the par value in rupees received in India for the bills being at the same time paid to the silver portion of the reserve held in that country.

In November 1908 trade resumed its normal course, and since that time the weekly sale of bills and telegraphic transfers has not been interrupted. The improvement in exchange enabled the Secretary of State to begin, towards the close of 1908–9, the process of replacing the securities held on account of the Gold Standard Reserve in England, the nominal value of which had, under the operations described above, been reduced from £14,893,000 in February 1908 to £5,857,000 in November 1908. The process of replacing the securities was continued during 1909–10, and has now been completed. In March 1911 the nominal value of these securities was £16,405,013. The increase in the invested portion of the fund has been attended by a corresponding reduction in the value of the rupees held in India in the silver branch of the reserve, which had been abnormally swollen by the transactions of 1908.

*Coinage.*—The silver coinage at the Indian Mints was :—

| | 1908–9. Number Coined. | 1909–10. Number Coined. |
|---|---|---|
| Rupees | 25,130,598 | 20,771,397 |
| Half-rupees | 1,576,498 | 1,568,586 |
| Quarter-rupees | 7,083,812 | — |
| Eighth-rupees | 6,786,912 | 1,603,811 |
| British Dollars (for export to Hong Kong) | 6,870,741 | 5,954,218 |

The rupee coinage of 1908–9 and 1909–10 represented almost entirely the recoinage of old rupees and uncurrent coin.

The value of the copper, bronze, and nickel coinage during the two years was as follows :—

| | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Copper | 9,022 | 2,333 |
| Bronze | 73,597 | 39,915 |
| Nickel | 93,900 | 103,333 |

*Paper Currency.*—Under the Indian Paper Currency Act, 1910 (II. of 1910), which consolidated and amended the law relating to Paper Currency, Notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. The issue of 20-rupee notes has been discontinued.

There are seven currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, and Rangoon respectively.

Prior to the passing of the Paper Currency Act of 1910 the 5-rupee note alone was legal tender throughout India and payable at any office of issue in the country; notes of higher value were legal tender only within the currency circles from which they were issued. The Act of 1910 "universalised" notes of a denominational value of 10 and 50 rupees, and thus marks an important stage in the development of the paper currency system of India. The Act requires that a reserve shall be held against the notes equal to their full value; securities of the Government of India and of the British Government may be held as part of the reserve up to a limit of £8,000,000, of which the British Government securities may not exceed £1,333,000 (Rs. 2,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1910 the value of notes in circulation was £36,272,300, being more by £5,947,000 than on the corresponding date in 1909. The constitution of the paper currency reserve was as follows :—

| | £ |
|---|---|
| Gold | 8,701,716 |
| Silver coin | 19,556,439 |
| Silver bullion | 52,465 |
| Securities of the Government of India | 6,667,000 |
| Securities of the British Government | 1,333,000 |
| | 36,310,620 |
| *Deduct* amount due on bills drawn by one circle on another | 38,300 |
| | £36,272,320 |

## Banks.

*The Presidency Banks.*—The three Presidency Banks of Bengal, Madras, and Bombay are bodies corporate, constituted under the Presidency Banks Act of 1876. This Act has been modified by a succession of other Acts, of which the most recent was passed in 1907. It regulates the constitution and management of the banks and prescribes the kind of business that they may undertake. The most important statutory restrictions are that they may not borrow out of India, nor draw, discount, buy, or sell bills of exchange, or other negotiable securities payable outside India or Ceylon, except that, when they receive interest, or the proceeds of the sale of securities, on behalf of their principals, they may draw bills of exchange or grant letters of credit, payable out of India, for the purpose of remitting such interest or proceeds at the risk of the principals. The effect of these restrictions is to prevent the Presidency Banks from dealing in foreign exchanges or otherwise employing their capital out of India.

The Presidency Banks in accordance with the provisions of agreements into which the Government of India has entered with them, act as bankers for the Government of India, paying and receiving money on its behalf and managing the public debt; they receive in return a fixed annual payment, and a commission on the amount of the public debt which they manage. The Government also undertake to keep a minimum balance at each bank, or, failing this, to pay interest on the deficiency.

The following table shows the extent of the business of the Presidency Banks at the end of December 1910:—

| — | Bank of Bengal. | Bank of Madras. | Bank of Bombay. |
|---|---|---|---|
| | £ | £ | £ |
| Paid-up capital | 1,333,333 | 400,000 | 666,667 |
| Reserve | 1,153,333 | 320,000 | 700,000 |
| Public deposits | 1,175,281 | 484,936 | 1,016,580 |
| Other deposits | 10,545,970 | 3,781,408 | 7,042,515 |

*Banks registered under the Indian Companies Act.*—The number of joint stock companies registered as engaged in banking or loan operations in India, on 31st March 1910, was 452. The majority of these companies consist of societies with a relatively small capital.

# CHAPTER IV.

## LAND REVENUE.


| | |
|---|---|
| Land Tenures. | Revenue Assessments, &c. |
| Land Legislation. | Collection of the Revenue. |
| Revenue Surveys, Settlements, &c. | Wards' and other Estates. |


*(For further details see Statistical Abstract of British India, Tables 45 to 49 and 122.)*

The present chapter deals with Land Revenue (including revenue from Capitation Tax, Fisheries, &c.) and with subjects appertaining thereto. From time immemorial a share of the produce of the land has been the chief source of public revenue in India. Land revenue is still the mainstay of the Government, constituting about 41 per cent. of the total net revenue that accrues to the Indian Exchequer.

### Land Tenures.

Owing to its far-reaching social and political effects the proper administration of the land revenue has always been one of the chief problems of the Indian Government, and during the early years of British rule the best methods of assessment were keenly debated. In 1793 Lord Cornwallis introduced into Bengal a permanent settlement, by which the demand of the State was fixed and made for ever unalterable. Other systems were gradually evolved, and at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 20 to 30 years, the latter period prevailing in all the larger provinces except the Punjab and the Central Provinces, where settlements are usually made for 20 years, and in Burma, where the ordinary term will in future be 20 years. At these settlements careful surveys are made of all holdings and records of rights in the land. The policy of long term settlements is being extended. Under the system of periodical revisions of the land assessment the State secures a share in the increased rental value arising from the general progress of the community. Of late years measures have been taken to exempt improvements from assessment, and generally to make the enforcement of the rights of the State as little burdensome as is possible to the revenue-payer. Periodical revision also affords the opportunity of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities arising from any cause.

When the revenue is assessed by the State, permanently or temporarily, on an individual or community owning an estate, and occupying a position identical with, or analogous to, that of a landlord, the assessment is known as *zamindari;* where the revenue is imposed on individuals who are, or who represent, the actual occupants of holdings, the assessment is known as *ryotwari*. Under either system there may be rent-paying sub-tenants. In southern India, where most of the land is held by petty occupiers direct from the State, the occupiers have the right to retain their holdings so long as they pay the revenue due from them. In both the permanently and temporarily settled districts of northern India laws have been passed to safeguard tenant rights. The permanently settled districts, in which all holdings are *zamindari*, cover most of Bengal and Eastern Bengal, and parts of Madras and the United Provinces. As regards temporarily settled districts, *zamindari* estates, held by proprietary groups or large individual proprietors, are chiefly found in the Punjab, the United Provinces, the Central Provinces, and Orissa (Bengal), while in Bombay and Sind, Burma, Assam, Berar, and most of Madras the system of *ryotwari*, or peasant proprietors, prevails.

The appended table gives the acreage of the surveyed areas in which the various tenures prevailed during 1909–10 (in thousands of acres). The figures include waste and uncultivated areas as well as cultivated lands, and merely indicate the extent to which the two systems respectively prevail.

| Province. | *Ryotwari* (Peasant Proprietors). | *Zamindari* (Individual Proprietors or Village Communities). | | Total. |
|---|---|---|---|---|
| | | Permanently settled. | Temporarily settled. | |
| | 000 acres. | 000 acres. | 000 acres. | 000 acres. |
| Burma | 114,000 | — | — | 114,000 |
| Assam | 25,865 | 3,931 | 1,502 | 31,298 |
| Eastern Bengal | — | 21,712 | 7,004 | 28,716 |
| Bengal | — | 59,242 | 14,850 | 74,092 |
| United Provinces of Agra and Oudh | — | 7,841 | 60,575 | 68,416 |
| Punjab | — | — | 62,215 | 62,215 |
| North-West Frontier Province | — | — | 8,438 | 8,438 |
| Bombay | 44,850 | — | 3,771 | 48,621 |
| Sind | 30,252 | — | — | 30,252 |
| Central Provinces | 1,773 | — | 40,606 | 42,379 |
| Berar | 11,327 | — | — | 11,327 |
| Madras | 61,577 | 29,179 | — | 90,756 |
| Minor Administrations (Ajmere, Coorg, Manpur) | 1,043 | 959 | 735 | 2,737 |
| Total | 290,687 | 122,864 | 199,696 | 613,247 |

It will thus be seen that about 47 per cent. of the total area is held by peasant proprietors, while 20 per cent. is held by permanently settled, and 33 per cent. by temporarily settled, *zamindari* proprietors.

## Land Legislation.

*Bengal.*—Throughout the major part of the province the relations between landlord and tenant are governed by the Bengal Tenancy Act, which continued to work satisfactorily. The withholding of rent receipts and the levy of illegal exactions have by no means ceased, but the tenants are gradually learning to know their rights and to resist illegal demands. Settlement operations have taught tenants their rights and privileges, and the general spread of education tends to the same result. The Chota Nagpur Tenancy Act of 1908, passed to amend and codify the existing laws, was extended to the Manbhum district in December 1909. A special Tenancy Bill has been framed for Orissa.

*Eastern Bengal and Assam.*—The Bengal Tenancy Act is in force in all the Eastern Bengal districts, except the Chittagong Hill Tracts. Both landlords and tenants are said to have become better acquainted with its provisions, chiefly owing to survey and settlement proceedings, the records of which are being more freely used. Tenants, however, from ignorance of their own rights and of their landlords' legal powers, still suffer in many districts from exactions and from illegal methods employed by landlords and their agents to extort enhancements of rents and consent to inequitable leases.

*United Provinces.*—Owing to the protection afforded by the Agra Tenancy Act there has been a growth in the area occupied by tenants of 12 years' standing. Out of 20½ million acres held by ordinary tenants over 13¾ million acres are now protected, that is, the landlords are debarred from arbitrary ejectment. The area protected increased by 108,781 acres in 1908–9.

The Bundelkhand Alienation of Land Act, 1903, which is framed on the lines of the Punjab Land Alienation Act, continues to work satisfactorily. Its object is to place restrictions on the sale or other permanent alienation of land by the agricultural castes to the non-agricultural classes. In the year under review 71 per cent. of the transactions affecting land in the districts to which the Act applies were between agriculturists. As regards agricultural credit, larger loans may be more difficult to obtain than formerly, though smaller ones can be got readily. The Act has not injuriously affected credit. Attempts to evade the Act were few.

*Punjab.*—The Punjab Land Alienation Act of 1900, designed to protect hereditary land-owning tribes from expropriation by money-lenders, has been extended to those tribes who, though numerically weak, are really agriculturists and require protection. This is a distinct innovation. The effect of the Act for some years was to prevent further loss of land by the tribes, but now the old land-owning tribes are recovering part of what passed out of their hands before 1901. The anxiety of all classes to be notified under it disposes of the allegation that credit has been impaired. Very few evasions of the Act have been reported.

*North-West Frontier Province.*—The Punjab Alienation of Land Act, 1900, as modified by the North-West Frontier Province Regulation No. I. of 1904, and as amended in 1908, has now been operative for five years in three districts. The Act is appreciated by the zamindars and its operations appear to be beneficial. Gifts and exchanges have not been used as a means of evading the Act.

*Madras.*—The Madras Land Encroachment Act of 1905 worked smoothly, except in Salem, where the faultiness of the re-survey gave rise to trouble. The difficulties in the working of the important measure for defining and regulating the position of tenants in the *zamindari* areas, known as the Madras Estates Land Act of 1908, are gradually settling down as suits are decided by the Law Courts. Landlords and tenants resorted to the provisions of the Act more largely than in 1908–9, but it is still insufficiently known. In some places relations are strained owing to the ryots' eagerness to substitute money for grain rents, and payments of rents are being withheld pending decisions of suits. No glaring defect needing immediate rectification has been noted in the working of the Act.

*Bombay.*—The extension of the Deccan Agriculturists' Relief Act from four selected districts to other parts of the presidency, though of recent date, has induced the cultivator to adopt sounder methods. Its working has been fortified by the restrictions imposed in certain parts, under the conditions of the new tenure, on the alienation of lands, by the operations of the co-operative credit societies, and above all by the widespread system of Government advances. Although it has restricted credit by checking unnecessary borrowing, it has not hampered agricultural operations by crippling the finances of the ryot. Moreover, it has tended to lower the money-lender's rate of interest.

### Revenue Surveys and Settlements and Land Records.

For the purpose of land revenue assessment revenue surveys are necessary. Cadastral maps showing the holdings are prepared, and corresponding field registers are made showing from whom the revenue assessment is to be realised, and also the amount of such assessment. The record also usually exhibits the existing rights in, and encumbrances on, the land. As the revenue records are carefully revised at short intervals a very extensive and complete system of registration by public entry is being built up, and transfers of land are easily attested. Settlements (or re-settlements) in new or in temporarily settled areas are always in progress. In consequence of improved methods the period occupied in the process is much shorter than formerly, and involves comparatively little harassment of the people.

*Bengal.*—In January 1909 the control of cadastral surveys was transferred from the Surveyor General of India to the Bengal Settlement Department, whose work now also includes traverse surveys, special surveys, and mapping. Survey and settlement work during the agricultural year to September 1910 extended over 17 districts. The main work of the Survey Department consisted of traverse surveys, which covered 3,635 square miles, or 270 more than in 1908–9. The area cadastrally surveyed was 3,474 square miles, as against 3,378 square miles in 1908–9. The total area for which a record of rights has now been completed in Bengal is 51,392 out of 115,819 square miles. Rents were settled for 163,195 tenants, as compared with 201,459 tenants in 1908–9. The revision of the survey and record of rights in the temporarily settled districts of Orissa was continued, the total area now covered by the operations being 5,173 square miles. The settlement of rents in the temporarily settled and Government estates in Midnapore and in the permanently settled estates of the Sonthal Parganas was completed.

*United Provinces.*—Settlement operations were completed in three districts, and in one only was any settlement work remaining. The new asessment in Moradabad produced an increase of over 24 per cent. in the demand, while in Banda there was a decrease of under 1 per cent. The reorganised Land Records Department has made progress in all directions. Village records were submitted with much greater punctuality and their testing was satisfactory. The village maps have been brought up to date. A revised Land Records Manual has been prepared.

*Punjab.*—Settlement operations were completed in Gurgaon district, and made good progress in six other districts. The assessments sanctioned in 1908–9 in the province gave an aggregate increased land revenue of £49,000. In order to save trouble to the people and cost to the Government settlement operations have been shortened by curtailing the time spent on measurement work and revision of records. The agriculturist element in the *patwari* staff was further strengthened.

*North-West Frontier Province.*—Settlement operations in the Frontier Province were completed during 1906–7 after six years' work. But owing to complaints of unduly heavy enhancements of revenue imposed in the settlements an inquiry was undertaken, and it was shown that, although defensible from a purely revenue standpoint, the enhancements were too high and sudden, while insufficient consideration had been paid to the poor communications and to the insecurity of life and property inseparable from a border tract. Remissions of revenue were made in villages in three districts where the existing demand was found too heavy, and detailed inquiry has been instituted to decide what further relief is required. In the Department of Land Records the number of mutations attested during 1908–9 was 128,434.

*Burma.*—In future revision surveys of areas changed in natural features or by cultivation and extension surveys of new tracts outside the cadastral area are to be more generally undertaken by the regular district staffs, instead of by special itinerant staffs. Owing chiefly to financial stringency little survey work was done in 1909–10. Of the 37 districts of the province six are unsettled and 27 are wholly settled, while in four temporary settlements are in force. The six unsettled districts are hilly and sparsely populated, and it has been decided that settlement is not at present necessary. In five districts second settlements have been made. In one a third settlement is in progress. It has been decided to extend the normal period of settlement from 15 to 20 years and to graduate the increases of rates imposed in revision settlements. The rates fixed in the first settlements were very low and early revision was desirable, but now that in most districts of Lower Burma normal rates have been fixed, the need of frequent revision and considerable increases in revenue rates has largely disappeared. It has also been decided to devote at least two years to the examination on revision of any area proposed for re-settlement. During 1909–10 settlement operations were in progress in six districts. The average cost of the operations was 7*d.* per acre. Second settlements were notified in Thaton and Minbu districts, and new (intermediate) rates were notified on a cultivated area of 687,071 acres, the aggregate revenue demand being increased by 18,090*l.*, or 21·6 per cent. The reorganisation of the superior Land Records staff was completed.

*Central Provinces and Berar.*—During the year settlement operations were carried on in nine districts. The Mandla settlement was practically completed, and good progress was made in Jubbulpore and Raipur. In the Land Records Department the scales of pay have been found insufficient to attract recruits, owing to continued high prices.

*Eastern Bengal and Assam.*—In 1908–9 the survey work of the province was separated from that of Bengal and an independent Survey Department was constituted. A survey and record of rights for the entire settled area of the province are being prepared, and afterwards the village maps and records will be kept up to date. The record of rights is increasingly utilised by executive and judicial officers. Good progress was made with major settlement operations in the Jalpaiguri and Mymensingh districts of Eastern Bengal and the Lakhimpur district of Assam.

*Madras.*—Six survey parties were at work during 1909–10 in five districts. They dealt with 2,376 square miles, but were again unable to work up to the forecast. Five settlement parties continued their operations. The aggregate land revenue demand of the districts either newly settled or re-settled is £3,579,660, an increase of 28·2 per cent. on the demand prior to re-settlement. The cost of the re-settlement operations up to the end of 1908–9 has been £1,128,119. The Land Records Department was, as in previous years, mainly confined to measures preliminary to maintenance.

*Bombay.*—The survey and settlement officers were engaged in demarcation, measurement, classification, and other work of a routine character. Survey parties continued operations in all divisions of the Presidency. The record of rights is now almost completely established in the Presidency proper, while considerable progress has been made in Sind. A course of survey instruction was conducted at numerous centres for Circle Inspectors and Village Accountants.

## Revenue Assessments and Incidence.

Land revenue is realised in the form of an annual payment for cash, the assessment rates being subject to no alteration during a prescribed term of years, though the amount leviable in any year may vary according to the area actually cultivated or to the condition of the harvest. Except in Bombay (where the assessment is not fixed in

terms of produce), the land revenue is assessed so as to represent a share, not of the gross, but of the *net* produce (or net assets). In the zamindari, or landlord settlements, that widely prevail in Northern India, the cultivating tenant pays rent to a landlord. Of this rent the Government usually takes rather less than 50 per cent. as land revenue.

The incidence of land revenue on the fully assessed cultivated area is under 1*s.* 1*d.* per acre in the permanently settled area of Bengal, and represents, on an average, less than 25 per cent. of the rental. In the permanently settled tracts of Eastern Bengal it falls to about 11*d.* per acre, while in those of the United Provinces it rises to 1*s.* 4*d.* in Oudh and 1*s.* 10*d.* in Agra. In the temporarily settled tracts the incidence per acre is approximately 1*s.* 11*d.* in Upper Burma, 3*s.* 8*d.* in Lower Burma, 3*s.* 4*d.* in Sind, 3*s.* 3*d.* in Madras, 2*s.* 4*d.* in Agra, 2*s.* 6*d.* in Oudh, 2*s.* 4*d.* in Eastern Bengal, 1*s.* 11*d.* in Bombay, 1*s.* 7*d.* in Berar, 1*s.* 6*d.* in the Punjab, and 8*d.* to 9*d.* in the Central Provinces. Rates of revenue vary greatly with the productive power of the soil, advantages of climate and irrigation, and facilities for marketing produce. The land revenue rates for Sind and Madras given above include charges for State irrigation; elsewhere the land revenue rates exclude these charges. In Madras and Bombay the revenue demand is not enhanced on account of increased productiveness due to private improvements, while in Northern India such improvements are not taken into account in assessing the revenue until a period varying from 20 to 45 years has elapsed. It may be added that the burden of the land revenue per head of the population of British India was under 1*s.* 8*d.* in 1909–10.

It has been calculated that in the Central Provinces the share of the gross produce represented by the land revenue is less than 4 per cent. of the average annual value; in Berar, the Deccan, and the greater part of the Punjab, about 7 per cent.; and in Gujarat, 20 per cent. It is certain that the Government now takes a very much smaller share of the gross produce than was customary in the days before British rule, while the assessments are lower than those that prevail generally in the Native States.

The Government makes liberal reductions of assessments in cases of local deterioration, where such reductions cannot be claimed under the terms of settlement.

### Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the following table :—

| Year. | Land Revenue Receipts (excluding those due to Irrigation). | Variation (Average of Five Years, 1881–5 = 100). |
|---|---|---|
| | £ | |
| 1881–5 (five years' average) | 14,748,000 | 100·0 |
| 1886–90 „ „ (annexation of Upper Burma) | 15,445,000 | 104·7 |
| 1891–5 „ „ | 16,522,000 | 112·0 |
| 1896–1900 „ „ (includes two famines) | 17,217,000 | 116·7 |
| 1900–5 „ „ | 18,483,000 | 125·3 |
| 1905–6 (single year) | 18,836,000 | 127·7 |
| 1906–7 „ | 19,794,000 | 134·2 |
| 1907–8 „ (widespread shortage of crops) | 18,719,000 | 126·8 |
| 1908–9 „ | 19,759,000 | 134·0 |
| 1909–10 „ | 21,332,000 | 144·6 |

The general increase in land revenue is attributable to a variety of causes—to the inclusion of new territory (as Upper Burma); to the bringing of new land under cultivation as in Lower Burma, the Central Provinces, Sind, and the Punjab; to the inclusion of Berar since 1st October 1902; and to the progress of settlements and re-settlements, which, owing to the generally enhanced values of land, usually result in additions to the land revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab. The land revenue is usually paid punctually, and it is seldom necessary to have recourse to imprisonment, sales of land, or other processes for the recovery of arrears.

In 1907–8 the yield of land revenue was much reduced through the widespread shortage of crops. The receipts for 1908–9 were also adversely affected by the failure of the winter rains in Bombay and other provinces, and the partial drought in Upper Burma, though in the United Provinces and the Central Provinces there were large collections of arrears of land revenue suspended during the famine. The improved agricultural conditions in 1909–10 enabled a large part of the heavy arrears

of the two previous years to be paid up. This recovery of arrears, the extension of cultivation in Burma, the introduction of re-settlement rates in certain Madras districts, and larger sales of proprietary rights in the Punjab canal colonies swelled the revenue in 1909–10.

The land revenue receipts in 1908–9 and 1909–10 were made up as follows:—

| | 1908–9. | 1909–10. |
|---|---|---|
| Ordinary land revenue | £18,864,010 | £20,238,630 |
| Assessment of alienated lands, less quit-rents* | 633,533 | 659,766 |
| Sale of proprietary right of Government in land† | 21,670 | 81,875 |
| Capitation tax, or house tax levied in lieu thereof‡ | 660,074 | 657,667 |
| Sale of waste lands and redemption of land revenue | 50,365 | 72,804 |
| Recovery of survey and settlement charges§ | 39,090 | 70,107 |
| Fisheries and other receipts | 581,362 | 668,680 |
| | £20,850,104 | £22,449,529 |
| *Deduct* portion of land revenue due to irrigation | 1,091,044 | 1,117,388 |
| Total land revenue | £19,759,060 | £21,332,141 |

The charges in 1909–10 included £1,578,386 for district administration, £462,602 for survey and settlement charges, £936,474 for land records, and £672,048 for collection of the revenue. The total charges were £3,650,079.

The total advances made by Government to cultivators during 1909–10 amounted to £766,500, and the total amount of advances outstanding at the close of the year was £3,067,000. The advances were chiefly for the relief of agriculturists, but partly for the improvement of land and for loans to co-operative credit societies.

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

*Bengal.*—The land revenue of Bengal remains fairly constant, as most of the province is under permanent settlement. The revenue demand for 1909–10, excluding arrears, amounted to £1,928,963, including £1,525,392 from 115,005 permanently settled estates, £215,032 from 10,661 temporarily settled estates, and £188,539 from 961 estates under the direct management of Government. As a result of the good harvests, following three bad years, the percentage of current collections on current demand rose to 98·2 per cent. Remissions were trifling. The number of estates, &c. which became liable to sale for non-payment of Government revenue fell to 12,998, but only 675, or 5·1 per cent., were actually sold. Under the Public Demands Recovery Act, 62,082 certificates were filed for recovery of arrears of revenue (exclusive of cess), compared with 56,930 in 1908–9; payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 2,048 cases, and warrants were issued in 784 cases, 37 defaulters being imprisoned. Advances under the Loans Acts amounted to £148,969.

*United Provinces.*—In the United Provinces there was a substantial recovery after a year of famine, though normal conditions were not wholly restored in all districts, and the land revenue demand for 1908–9 was much swollen by the suspensions of 1907–8. The fixed land revenue demand in 1908–9 was £4,320,321. About £303,800 was remitted or suspended, and the collections were short of the demand by only £5,800. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £568,536) and the owners' rate (receipts, £11,659), which constitute payments for irrigation, besides cesses, &c. The collections on account of canal rates fell with a decrease in the area irrigated. There was, in spite of recovery from famine, a large demand for advances under the Land Improvement Loans Act and the Agriculturists' Loans Act, the total amounting to the large sum of £209,600. The loans were chiefly for the purchase of seed and plough cattle and for the repair or construction of wells. Over £820,000 was repaid of loans made in 1907–8. The number of coercive processes nearly doubled, partly because the year was difficult for revenue collections, partly because the irregular use of single citations and warrants for several defaulters at once has been checked. For the same reasons the number of warrants for arrest (8,694) showed the large increase of 4,005. Attachments of

* Mostly from Bombay. † Mostly from Punjab. ‡ Mostly from Burma.
§ From Bengal and Eastern Bengal and Assam.

moveable property were not abnormal, and only in 121 cases was the attached property sold. There was only one sale of immovable property.

*Punjab.*—The year 1908–9 was one of abundant rainfall. The autumn harvest was much above normal, and the spring harvest was about normal. The fixed land revenue demand for the year amounted to £1,369,800, or about £7,000 less than in 1907–8. About 97 per cent. was collected. The "fluctuating" revenue amounted to £355,075, or 20 per cent. of the total land revenue demand. There was an increase in the area under the "fluctuating" system, in which the demand varies with the crop; it is applied for the most part to canal-irrigated and riverain tracts. Miscellaneous revenue, mostly derived from sales of Government estates, amounted to £130,100. A large portion was derived from the sale of Government estates in the Chenab Colony districts. Agricultural advances amounted to £48,500.

*North-West Frontier Province.*—In 1908–9 the harvests were good. Of the total demand of £129,572 on account of fixed land revenue, 99·4 per cent. was collected. Fluctuating and miscellaneous land revenue contributed £26,771, compared with £23,052 in 1907–8. The system of fluctuating assessments is generally appreciated. Coercive processes rose from 1,789 to 2,223. The increases were chiefly in the Hazara and Dera Ismail Khan districts. In only one case was imprisonment necessary. The agricultural advances made during the year amounted to £8,400.

*Burma.*—The agricultural year to 30th June 1910 was generally favourable in Lower Burma and excellent in Upper Burma. The revenue demand (exclusive of arrears) under the various heads for each of the last two years is shown in the margin. The current land revenue demand amounted to £1,743,160, of which over 99 per cent. was collected. Under each head there were increased receipts, but the proportionate increase in land revenue was somewhat less than in recent years. The number assessed for capitation tax increased to 1,343,639, a growth of 29,144. There was a rise of 20,247 to a total of 780,886 in the number of households assessed to the household tax, or *thathameda*. There was a satisfactory increase, amounting to £11,358, in receipts from the river and other fisheries. The heading "other sources" includes fees, rents, and royalties on petroleum, rubies, &c., which amounted to £196,400. Remissions, due chiefly to floods, amounted to £23,939. As regards coercive processes for the recovery of revenue, the number of defaulters committed to jail was only 37. Capitation tax and *thathameda*, which are levied in Lower and in Upper Burma respectively, are harder to collect without process than land revenue. Coercive processes are mostly issued not on account of contumacy, but because the assessees are not readily found. The amount of agricultural advances rose to £53,481.

| — | 1908-9. | 1909-10. |
|---|---|---|
| | £ | £ |
| Land Revenue - | 1,719,288 | 1,743,160 |
| Capitation tax - | 357,987 | 365,578 |
| Household tax - | 273,556 | 279,043 |
| Fisheries - - | 186,353 | 197,711 |
| Other sources - | 202,140 | 230,899 |
| TOTAL - | 2,739,324 | 2,816,391 |

*Central Provinces and Berar.*—In the Central Provinces the year to 30th September 1909 was was one of partial recovery after the failure of 1907–8, and prosperity increased among the agricultural classes. The land revenue demand (excluding cesses) was £592,555. Remissions and suspensions were small. Collections were good. Coercive processes showed some increase. The number of defaulters arrested was 149, but only one was imprisoned; attachments and sales of property numbered 614 and 33 respectively. Agricultural advances to the amount of £65,184 were made, chiefly for the purchase of seed and cattle.

In Berar during the year to 31st July 1909 indifferent crops followed on the very poor season 1907–8. The land revenue demand, including cesses, amounted to £596,666, a small increase over that of 1907–8, and almost the whole was collected during the year. There was an increase in the number of coercive processes, but attachment was effected in only 335 cases and actual sale in only 19 cases. In Berar agricultural advances amounted to £13,167.

*Eastern Bengal and Assam.*—While the year 1908–9 was marked by a general shortage and uneven distribution of rainfall in most parts, the year 1909–10 had on the whole a well-distributed rainfall, and the rice crop was the best for some years. The total current land revenue demand for the Plains districts was £1,285,374, as against £1,268,334 in 1908–9, while the collections were respectively 96·5 as against 96 per cent. Of the total revenue 51 per cent. was contributed by

permanently settled estates, 37 per cent. by temporarily settled estates, and 12 per cent. by estates under direct Government management. Miscellaneous land revenue amounted to £41,431 in 1909–10. The land revenue was collected with great ease, and only 496 estates (mostly petty estates in the Chittagong district) were actually sold in Eastern Bengal. The amount of revenue for which it was necessary to sell up property in Assam was very small. The amount of agricultural loans granted, £12,560, was smaller than in 1908–9. The revenue demand (ordinary and miscellaneous) for the Assam Hill districts was £17,298 in 1909–10, as against £16,631 in 1908–9.

*Madras.*—The south-west monsoon in 1909–10 was on the whole good and well-distributed, but the north-east monsoon was generally deficient. Both the dry and hot weather rains were below the average. The total crop area fell below the normal by 298,000 acres, while the outturn was in no case above normal. The total current demand in 1909–10 for land revenue, including charges for irrigation and miscellaneous receipts, was £4,300,590 (in addition to £433,196 for various cesses), of which nearly 98 per cent. was collected. Of the above demand, £332,775 represents revenue from permanently settled estates, and £50,342 quit-rents from villages held under special tenures, these sums being fairly constant; the remainder comes mainly from peasant proprietors. Remissions were small. As the result of orders which were passed in 1904 to restrict the issue of demand notices to cases of real necessity, there has been a decline in the number from 6,212,162 in 1903–4 to 1,538,087 in 1909–10, while the number of sales has fallen from 9,479 to 3,564. Advances under the Loans Acts amounted to £43,800.

*Bombay and Sind.*—During the year to 31st July 1909 the season, though better than in 1907–8, was unsatisfactory in the greater part of Bombay, but was favourable on the whole in Sind, except in the Karachi district. The total land revenue demand amounted to £2,771,796. A large sum was under suspension, especially in the Central Division. The collections were 89 per cent. of the demand in Bombay and 94 per cent. in Sind. The agricultural advances made in Bombay and Sind amounted to £137,623.

### WARDS' AND OTHER ESTATES.

*Wards' Estates.*—Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been largely made in the owners' interests. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage their own property, or of persons declared by the local Government, at their own request, to be disqualified for its management. Since that year, various amending Acts have been passed in the several provinces, their general effect being to increase the powers of the Court of Wards with regard to the management of the properties under its charge and the discharge of encumbrances, and to prevent disqualified proprietors from creating new charges without the knowledge of the Court. The duty of the Courts is to manage the estates under their charge in the interests of both proprietors and tenants; to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates; and to spend the surplus income on the improvement of the property in the best attainable way.

At the end of the last agricultural year for which complete figures were available there were 615 estates under management in the eight provinces that have Courts of Wards. The gross income of the estates was about £2,472,000.

*Other Estates.*—In Bengal there were 961 Government estates under direct management, with a current revenue demand of £188,539. The number has been reduced from 1,530 in 1908–9 chiefly by amalgamation. In Eastern Bengal and Assam there were 1,590 Government estates under direct management, paying an annual revenue of £156,921, at the close of 1909–10. In the United Provinces the number of Government estates fell from 624 to 611, most of them being properties bought in under the Bundelkhand Encumbered Estates Act. In Bombay proper there were 602 estates under the management of the Talukdari Settlement Officer and 302 encumbered estates under a special manager in Sind.

# CHAPTER V.

## REVENUE FROM TAXATION AND OPIUM.

| | |
|---|---|
| SALT. | CUSTOMS. |
| EXCISE. | INCOME TAX. |
| PROVINCIAL RATES. | REGISTRATION. |
| STAMPS. | OPIUM. |

*(For further details see Statistical Abstract for British India, Tables 43, 45 to 47, 50 to 58, and 61 to 66.)*

Of the eight heads of revenue dealt with in this chapter, seven comprise the tax revenue of India, and furnish about 43 per cent. of the total net revenue of the Indian Government. To this the chief contribution is made by excise, the yield of which has increased in recent years, mainly on account of higher rates of duty and stricter supervision. Next come customs and stamps, both of which have benefited by the great progress in trade and industry. The salt revenue has diminished, owing to reductions, amounting to 60 per cent., in the rate of duty since March 1903. Receipts from income tax and registration, though small, are increasing.

### SALT.

*General.*—From time immemorial a tax on salt has been a source of revenue in India. The salt revenue is now raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from 3 annas (in Burma) to $3\frac{3}{4}$ rupees (in Bengal) per maund of $82\frac{2}{7}$ lbs. In 1882 a general duty of Rs. 2 per maund was introduced (except in Burma), and this was raised in 1888 to Rs. $2\frac{1}{2}$. In 1903 the rate of Rs. 2 was reverted to, and in March 1905 the tax was further reduced to Re. $1\frac{1}{2}$ per maund. A further reduction to one rupee (or 1*s.* 4*d.*) per maund was effected in March 1907. In Burma the rate has remained since 1888 at one rupee per maund on imported salt, and a system has been introduced by which the greater part of the salt which is locally produced pays a duty of 8 annas per maund. The Indian salt duty is now more uniform, and lower on the average, than at any former time. The reduced duty and increased facilities for transport have made salt cheaper than ever before. The successive reductions of duty have led to a large increase in consumption throughout India, as will appear from the table in the margin, the increase in the five years since the reductions began being about 20 per cent. Although, however, consumption has grown, the sacrifice of annual revenue cannot be made good by enhanced consumption within any period worth considering. The gross revenue from salt (including excise and customs receipts, proceeds of sales of Government salt, &c.) during recent years is shown in the table. In 1908 an Act was passed permitting the payment of the duty on a system of limited credit instead of in cash, and the reduction in revenue in the last two years is partly due to this cause. The revenue in 1909–10 increased to £3,319,518, of which nearly 30 per cent. was derived from imported salt. The charges amounted to £330,743, exclusive of £251,768 paid under treaties in the form of compensation, principally to Native chiefs who have assigned their salt sources to the Government of India. In some provinces the salt and excise administrations have recently been united.

| Year. | Issues of Salt in 100,000's of Maunds. | Duty per Maund. | Gross Revenue. |
|---|---|---|---|
| | | Rs. | 000 £ |
| Average: 1898–9 to 1902–3 | 360 | $2\frac{1}{2}$ | 6,002 |
| 1903–4 and 1904–5 | 385 | 2 | 5,302 |
| 1905–6 and 1906–7 | 419 | $1\frac{1}{2}$ | 4,370 |
| Year 1907–8 | 444 | 1 | 3,339 |
| „ 1908–9 | 454 | | 3,276 |
| „ 1909–10 | 458 | | 3,320 |

The principal sources of salt supply are the sea coast, especially in Madras and Bombay, where salt is manufactured by the evaporation of sea water; the salt lakes and pits of Rajputana; the salt mines of the Punjab and North-West Frontier Province; and importations from abroad, which supply most of Bengal, Eastern Bengal and Assam, and Burma. The duty is levied on salt at the place of manufacture, or at the port of importation, before it passes into consumption. Some of the salt sources belong to, or are worked under the direct control of, the various Local Governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt is unrestricted. Manufacture is not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, on the coast of Bengal.

*Northern India.*—The salt sources under the control of the Northern India Salt Department comprise: (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State; and (2) the Punjab sources, including the Mayo, Warcha, and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. The most important sources are the Sambhar Lake and the Mayo mine. Since 1870, when the lake was leased by the Government of India, over 148 million maunds of salt have been taken from it, and the financial results show a total credit balance of nearly £290,000. Owing to fears that the Sambhar salt was becoming exhausted, a long trench for obtaining subterranean brine has been excavated through the bed of the lake, while combined storage and evaporating reservoirs have been constructed. In spite of plague and shortage of labour there was a record outturn of 8,009,050 maunds in 1909–10. The Sambhar salt is sold at a uniform price of 4 annas per maund, with a charge of 3 pies for clearance; the sales in 1909–10 amounted to 4,800,112 maunds. The price of Didwana salt was 9 pies until 4th October 1909, when it was raised to 2 annas owing to a heavy run due to the opening of the railway; and the price of Pachbadra salt 1½ annas, with a charge of 3 pies for clearance. The sales from the Mayo and other Punjab mines amounted to 3,304,384 maunds. The Mayo salt is sold for 9 pies per maund, or, at the Khewrah depôt, for one anna. Kohat salt, on the average, costs about 9 pies. The gross revenue of the Northern India Salt Department in 1909–10 was £731,814, or £25,489 less than in 1908–9, while the total charges amounted to £78,243. The total quantity issued by the Department for consumption was 10,019,980 maunds, as compared with 9,523,039 maunds in 1908–9. The following table shows the provinces and states mainly supplied by the Department, with the salt consumption in 1909–10 and the average retail price of salt in each in 1909–10, compared with that in 1908–9:—

| Province or State. | Total Consumption. | Average Retail Price per Maund. | | Average Consumption per Head.† |
|---|---|---|---|---|
| | | 1908–9.* | 1909–10. | |
| | Maunds. | Rs. A. P. | Rs. A. P. | Lbs. |
| North-West Frontier Province | 182,880 | 1 9 1 | 1 8 8 | 7·08 |
| Punjab | 2,695,238 | 1 9 11 | 1 9 9 | 8·96 |
| Kashmir and Jammu State | 371,739 | — | — | 11·42 |
| United Provinces | 5,417,873 | 2 1 4 | 2 0 3 | 9·19 |
| Behar (Bengal) | 3,544,040 | 2 1 7 | 1 15 4 | 12·03 |
| Central Provinces and Berar | 2,457,660 | 2 6 1 | 2 5 8 | 13·83 |
| Rajputana and Central India | 2,539,781 | 1 14 8 | 1 14 11 | 11·09 |

* Corrected figures. † No allowance has been made for increase in population since the census of 1901.

The average retail prices were lower in all the British provinces enumerated. The annual figures of consumption represent the difference between the estimated supply (including imports into) and the exports from each territory, and are liable to be vitiated by the existence of stocks.

The Department issued 48,266 licences for the manufacture of saltpetre and other saline substances in 1909–10. The refineries produced 480,150 maunds of refined saltpetre.

The number of persons arrested for offences against the salt law was 416, of whom 246 were released. Of 151 persons convicted 19 were imprisoned.

*Bengal.*—The salt consumed in Bengal is imported from abroad or from other parts of India. In the littoral districts salt production is prohibited, owing to the difficulty of preventing illicit manufacture. The area under preventive operations was reduced during the year. The quantity of salt imported in 1909–10 was 11,678,319 maunds, a decrease of 16 per cent. upon 1908–9, ascribed to the existence of heavy stocks. About 1,130,600 maunds of Madras salt were imported into Orissa by rail. The average wholesale price of salt, including duty, at the chief marts of Bengal was about Re. 1.15.3 per maund, having decreased by about 2 annas as compared with 1908–9. The average retail prices in the saliferous tracts fell to 9½ pies a seer. The net amount of salt consumed in the province rose to 8,172,823 maunds, as against 8,506,450 maunds in 1908–9. The number of persons convicted of offences against the salt law was 95, a considerable decrease. Salt issued for use in curing fish was exempted from duty from December 1909. Detailed instructions were published for the issue of salt on the credit system on deposit of security.

*Eastern Bengal and Assam.*—This province, like Bengal, depends on imported salt. The total consumption in 1909–10 was 3,014,945 maunds, being an average per head of over 7½ lbs. The average wholesale selling price per maund, including duty, was Rs. 2.0.8, against Rs. 2.2.5 in 1908–9. There were no offences against the salt law, this being ascribed to the cheapening of salt by the reduction of the duty and to the vigilance of the preventive staff.

*Madras.*—Originally there was a Government monopoly of salt manufacture in the Madras Presidency, but in 1882 an attempt was made to substitute private manufacture and abolish all Government factories. This, however, did not answer, and in 1888 a certain number of Government factories were established as a check on the prices and quality of the privately manufactured (or "excise") salt. The system thus instituted still exists. Of the 64 factories worked during 1909–10, 45 were under private and 19 under Government management. The outturn of salt declined, owing to heavy rain during the manufacturing season, from 11,844,846 to 8,427,467 maunds, of which 5,806,020 maunds were "excise" salt. The imports from Bombay and Goa, mostly to West Coast ports, amounted to 1,565,836 maunds. Excluding the salt sold for fish-curing and to the French Government, or exported, the total of salt for consumption was 10,875,887 maunds. The average consumption per head was 20·2 lbs. in the whole Presidency, including Coorg and Mysore, and other Native States (except Travancore and Cochin), as compared with 19·0 lbs. in 1908–9. The average wholesale price of "excise" salt fell from 3 annas 4 pies to 3 annas 2 pies per maund. Government salt is usually sold at a fixed rate of 3 annas per maund. The retail prices, including duty, varied from Re. 1.6.1 to Rs. 2.10.4 per maund, against Re. 1.6.3 to Rs. 2.8.3 in 1908–9. There was a further decline in offences against the salt laws, ascribed chiefly to the lower price of salt and to heavy rain in saliferous districts.

At the end of 1909–10 133 bonded yards were open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured declined to 1,305,802 maunds, the season being less favourable for fishing, and 711,696 maunds of cured fish left the yards fit for consumption.

*Bombay.*—The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government (Baragra salt), from sea-salt works on the coast, and from abroad, chiefly from Goa. The 435 sea-salt works, excepting one, at Dharasna, worked by the Government, are owned by, or leased to, private individuals. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces, take large amounts of sea salt. The conditions of the year were favourable. The marginal table shows the issues of salt from each source in 1909–10. The consumption per head was 12·17 lbs., as against 12·18 lbs. in 1908–9.

| —— | Total Issues. | For Local Consumption. |
|---|---|---|
| | Maunds. | Maunds. |
| Baragra salt - | 2,740,514 | 560,606 |
| Sea salt - | 9,190,486 | 2,253,293 |
| Imported salt | 418,027 | 287,952 |
| Total - | 12,349,027 | 3,101,851 |

There was but little change in the average market price per maund in most districts. There was a further diminution, from 264 to 170, in offences against the salt laws, ascribed to the reduction of duty.

Thirty fish-curing yards were open at the end of the year. The quantity of fish brought to be cured in bond fell from 248,778 to 247,717 maunds, and the quantity of cheap salt issued to fish-curers from 73,639 to 70,031 maunds.

*Sind.*—The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and from importation. The quantity consumed during the year was 403,681 maunds. The consumption per head rose from 10·12 lbs. in 1908–9 to 10·35 lbs. in 1909–10. The average wholesale price of Maurypur salt was Re. 1.14.8, and the average retail price Rs. 2.3.4, except in the Sukkur district, where it was Rs. 2.4.9. Only one fish-curing yard was worked. Salt offences rose from 53 to 55.

*Burma.*—One rupee per maund is levied on salt imported into Burma. All salt locally manufactured formerly paid an excise duty levied by a composition rate on vessels used for boiling brine; but a system of levying duty on actual output has now been introduced into all districts where any large quantity is produced, and has proved

financially successful. As the result of an inquiry into the salt industry, it has been decided to suppress the manufacture where it is of slight proportions, to concentrate it wherever it is continued, to enhance the excise duty by 25 per cent., and to combine the Salt with the Excise Department. Duty was paid in 1909 on 1,635,703 maunds of imported salt, on which Burma mainly depends, and on 671,932 maunds manufactured under the system of direct taxation. The total estimated output of local salt was 706,171 maunds. The estimated consumption was 2,382,317 maunds, of which about 32 per cent. was Burma salt. The prices of both foreign and local salt vary greatly in different districts. The average retail price rose from Rs. 2.13.3 per maund in 1908 to Rs. 2.15.6 in 1909. The statistics relating to local production of salt are untrustworthy, but the returns show that it tends to increase. The imports of foreign salt have largely increased. There was a decrease to 258,621 maunds in imports of salted fish, on which a duty of 6 annas per maund is levied.

## Excise.

*General.*—The excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and hemp drugs. There is no excise duty on tobacco or betel. Opium, which is a common household drug, is usually taken in the form of pills or is dissolved in water and drunk. Opium smoking is not extensively practised. The excise revenue from opium is chiefly composed of duty and vend fees, and the rate of duty varies with local conditions, being highest where smuggling is most difficult. The right of retail vend is usually sold by auction. With regard to hemp drugs, cultivation is restricted and controlled, a duty is paid before issue, and retail sale takes place under licences, which are usually sold by auction.

The considerable growth of the excise revenue in recent years is due mainly to higher rates of duty and stricter excise control, and does not indicate a corresponding increase in consumption, although some increase has occurred through the expansion of population and the greater prosperity of certain classes. There has been a large and continuous reduction in the number of country spirit shops in the chief provinces. The Government consider that shops should not be so few as to give each a monopoly over a wide area, lest prices should be unduly raised and illicit practices encouraged. Measures are being taken both to redistribute and to reduce the number of existing shops, as well as to improve the quality of the liquors sold.

In 1905 the Government of India convened a Committee to inquire into excise administration in respect of intoxicating liquors, and to propose reforms. In a Resolution, dated September 1905, they declared, in appointing the Committee, that they had no desire to interfere with those who use alcohol in moderation; but their settled policy was to minimise temptation for those who do not drink, and to discourage excess amongst those who do. The most effective way of forwarding this policy was to make the tax upon liquor as high as possible without stimulating illicit sale and production, and without driving people to substitute deleterious drugs for alcohol, or a more for a less baneful form of liquor. The Committee's report, dated 4th July 1906, was published as a Parliamentary Paper [Cd. 3327]. The orders passed thereon by the Government of India were also published as House of Commons Papers (142 and 209 of 1907 and Cd. 3816). As a result of the Committee's recommendations, an extensive programme of reform has been adopted, which is gradually being carried into effect. Some of the principal features of the Indian excise systems, with reference to the Government of India's recent orders, were outlined in the Moral and Material Progress Report for 1907–8.

The normal excise system for liquors, which will eventually prevail over the greater part of British India, is based on the grant by contract of the right of wholesale supply and the sale by auction of the right of retail vend. By these means the dangers of unrestricted competition for the supply of liquor and the attendant difficulty of proper supervision are avoided, while the largest possible part of the monopoly profits arising from these restrictions is secured to Government.

During 1909–10 many classes of excise duties were raised in the various provinces, in some cases on account of an increase in customs duties. But the increase in receipts anticipated from better economic conditions and stricter control was imperfectly realised. Continued high prices of food grains probably curtailed expenditure on exciseable articles. The following table shows the excise revenue for 1909–10 and 1908–9 under the different heads, as given in the Finance and Revenue Accounts:—

| Year. | Licence and Distillery Fees and Duties. | | | | | Duty, &c. on Indian Consumption of | | Fines, Confiscations, Miscellaneous. | Total Revenue. | Charges. | Net Revenue. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Foreign Liquors, &c. | Country Spirits. | Toddy. | Opium and its Preparations. | Other Drugs. | Opium,&c. | Ganja. | | | | |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| 1909–10 | 355,881 | 3,416,128 | 1,090,181 | 254,014 | 399,315 | 738,020 | 257,639 | 26,676 | 6,537,854 | 397,913 | 6,139,941 |
| 1908–9 | 351,407 | 3,373,062 | 1,027,493 | 255,370 | 392,280 | 734,848 | 234,172 | 20,996 | 6,389,628 | 390,552 | 5,999,076 |

| | £ |
|---|---|
| 1893–4 | 3,971,000 |
| 1903–4 | 5,291,000 |
| 1906–7 | 6,187,000 |
| 1907–8 | 6,585,000 |
| 1908–9 | 6,692,000 |
| 1909–10 | 6,837,000 |

A sum of £697,275 was yielded by customs duties on exciseable liquors imported into India during the year. The revenue from liquors and drugs (*i.e.*, total excise revenue less charges, *plus* Customs duties on exciseable liquors) for 1893–4, 1903–4, and the last four years is given in the margin. In 1909–10 it amounted to rather less than sevenpence per head of the population affected.

The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province :—

| PROVINCE. | Population of Excise Area by Census of 1901. | Number of Persons per Retail Shop licensed in 1909–10 for the Sale of | | | | Net Excise Receipts per 10,000 of Population in Rupees. | |
|---|---|---|---|---|---|---|---|
| | | Country Spirit. | Country Fermented Liquor. | Opium and its Preparations. | Narcotic or Intoxicating Drugs, other than Opium. | In 1908–9. | In 1909–10. |
| Bengal | 50,722,000 | 17,240 | 4,087 | 37,350 | 16,543 | 3,191 | 3,135 |
| United Provinces | 47,671,000 | 9,623 | 15,625 | 41,025 | 13,125 | 1,708 | 1,733 |
| Punjab | 20,407,000 | 23,484 | 497,737 | 22,279 | 34,012 | 2,273 | 2,063 |
| North-West Frontier Province | 2,120,000 | 57,308 | — | 25,547 | 24,096 | 1,310 | 1,412 |
| Burma | 9,188,000 | * | 8,088 | 74,100 | — | 7,280 | 7,164 |
| Central Provinces and Berar | 11,800,000 | 2,789 | 21,854 | 11,113 | 10,641 | 5,322 | 5,553 |
| Eastern Bengal and Assam | 30,296,000 | 44,553 | 3,685 | 39,042 | 24,752 | 2,225 | 2,314 |
| Madras | 38,248,000 | 3,797 | 2,267 | 35,813 | 59,118 | 6,154 | 6,561 |
| Bombay | 15,525,000 | 6,940 | 1,544 | 19,310 | 27,237 | 8,885 | 9,374 |
| Sind | 3,211,000 | 12,071 | 1,070,303 | 12,026 | 6,308 | 5,275 | 5,451 |

* For distillery spirits, 199,747 ; for outstill spirits, 164,078.

*Bengal.*—In Bengal the total excise revenue for the last two years, according to the departmental returns, has been as shown in the margin. The decreases in 1909–10 under country spirits and opium were only partially compensated by increases under fermented liquors and hemp drugs. The excise revenue per head is about fivepence. Among various reforms adopted during the year may be mentioned :—(1) An enhancement in the duty on foreign liquor, imported or locally made; (2) a further extension of the contract distillery system by the abolition of outstills; (3) an increase of the rate of duty on country spirit in four districts or parts of districts; (4) the restriction of supply of opium to shops in Calcutta and the adjoining districts of the 24 Parganas, Howrah, and Hooghly; (5) an enhancement in the duty on *bhang* in 15 districts. Measures were also taken to restrict the home brewing of *pachwai* and to regulate its sale. It has been ordered that a condition prohibiting sale on credit shall be inserted in all licences for the retail sale of country spirit, except in Calcutta, where consumers might be diverted to cheap foreign spirit. Calcutta again contributed more than one-third of the total revenue from country spirit. In 28 large towns local committees, largely composed of non-official members, were appointed to advise collectors as to the number and sites of liquor shops to be licensed for the ensuing year. In deference to local opinion country spirit and *tari* shops were abolished or removed to other sites in 20 districts. In Bhagalpur town *tari* shops were reduced by 73. The Bengal Excise Act of 1909 came into force on 1st December 1909.

| Gross Receipts from | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Country spirits | 599,036 | 576,374 |
| Foreign liquors and rum | 31,222 | 31,065 |
| Fermented local liquors, toddy, and rice-beer. | 123,757 | 131,419 |
| Opium | 181,303 | 171,401 |
| Hemp drugs | 196,544 | 207,668 |
| Miscellaneous | 1,524 | 1,634 |
| Total | 1,133,386 | 1,119,561 |

The consumption of opium decreased. The smuggling of opium into Burma continues to be practised on a large scale. The supply of opium from the Treasury

to licensed shops in Calcutta and the vicinity has therefore been restricted, but supplies are obtained from more distant districts. The importation and sale of cocaine have been limited to qualified and duly licensed persons; 272 licences were issued during the year. The illicit traffic in the drug again increased. Restrictions have also been imposed on eucaine, &c. An increased consumption of *ganja* is ascribed to a fall in the wholesale price. To check the unlicensed possession and sale of *ganja*, the limit of retail possession and sale has been reduced to 5 tolas, as in other provinces, from 1st April 1911.

There was a large increase—from 299 to 690—in the number of convictions for illicit distillation of country spirits, while 296 persons, of whom 258 were in Calcutta, were convicted for the illicit sale and possession of cocaine.

*United Provinces.*—In the United Provinces, after a decline in receipts from 1904–5 to 1908–9, there was a small rise in 1909–10. The gross excise revenue for the last two years has been as shown in the margin. The excise revenue per head is about three pence. There was only a slight increase in the consumption of country spirits, the recent famine and the consequent high prices of food grains and of the raw material of distillation, the increase in the still-head duty and restrictions on the trade being among the adverse factors of a year of transition. The chief feature of the year was the introduction of the contract supply system into 15 districts of the province. On the whole it has worked well, enabling a greater control to be exercised over the trade. The policy of reducing the distilling areas has been continued. Local committees in towns of over 20,000 inhabitants advised upon the number and location of liquor shops, which were further reduced. The number of shops for the retail sale of country spirit was reduced by 216, and of *tari* shops by 40. The abolition of the official vend of opium and an enhancement of the issue price resulted in an increase of receipts. The receipts from hemp and other drugs showed little variation.

| Gross Receipts from | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Country spirits | 335,856 | 346,548 |
| Foreign liquors and rum | 22,929 | 22,464 |
| Fermented liquors | 18,988 | 19,021 |
| Opium | 56,989 | 62,316 |
| Other drugs | 124,562 | 122,635 |
| Miscellaneous | 185 | 486 |
| Total | 559,509 | 573,470 |

There was an increase in prosecutions, which was most marked in cases of illicit distillation. There was a number of cases of illicit trading in opium and cocaine.

A new Excise Act was passed in February 1910.

*Punjab.*—The gross excise revenue in the Punjab for the last two years has been as shown in the marginal table. In 1909–10, after a steady growth during the previous decade, there was a marked decrease in receipts, due to more stringent control over both distillers and vendors of liquor and to difficulties attending changes in rules. All outstills have been abolished and the still-head duty raised. The sales of country spirits were smaller. A taste for beer in lieu of spirit is said to be growing among the natives. Local committees have been formed in the large towns to advise as to the number and location of liquor shops. During 1909–10 the number of retail licences for country spirit was reduced by 44. The new Excise Bill was circulated for opinion.

| Gross Receipts from | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Imported liquors | 14,229 | 10,901 |
| Malt liquors | 15,091 | 14,087 |
| Country spirits | 187,142 | 163,636 |
| Opium | 59,249 | 58,237 |
| Other drugs, &c. | 41,394 | 41,922 |
| Total | 317,105 | 288,783 |

There was a further decrease of 42 in the number of licensed opium shops. The importation of Malwa opium has been prohibited and the rates of duty on Afghan and other imported opium enhanced, while poppy cultivation has been rigorously restricted. The number of shops for the retail sale of hemp drugs was considerably reduced. The consumption of both *charas* and *bhang* increased. The smuggling of opium and cocaine claimed serious attention.

*North-West Frontier Province.*—The gross excise receipts amounted in 1909–10 to £21,239, as against £19,103 in 1908–9, the increase of 10 per cent. being mainly in opium. The gross receipts were: imported liquors, £2,757; country spirits, £5,872; opium, £7,708; other drugs, &c., £4,902. The duties on spirit and opium were enhanced. Extensive reforms were instituted in pursuance of the recommendations of the Excise Committee. The preventive system was reorganised.

*Burma.*—The gross excise revenue during the last two years was as shown in the marginal table. A further decline in opium revenue was due mainly to the policy of restricting sales to the ascertained actual consumption of buyers, who must use particular shops. The number of registered Burman opium consumers at the close of 1909–10 was 16,674, a decline of 1,429. There was no abatement in the smuggling of opium from India into Burma, and seizures were again large. The Burma Opium Law Amendment Act for preventing illicit dealing came into force in December 1909. The problem of preventing the increasing smuggling of cocaine engaged attention, the growing consumption being regarded with concern. Large seizures were made. Keener competition and a redistribution of shops caused an increase in the revenue from fermented liquors. There was a rise in the licence fees for the vend of *tari*. The excise committees appointed in 10 towns to advise on the number of licences and location of liquor shops have drawn up maximum and minimum scales of licences for each town. Rules have been framed to secure the supply of pure liquor of guaranteed strength and quality, to improve the arrangements for the vend of liquor, and to prevent its sale to unsuitable persons. Opinions differ as to whether there is an increasing consumption of liquor among Burmans, but the habit appears to be spreading among the wealthier classes. The contract distillery system is being further extended. Convictions for excise offences were somewhat fewer than in 1908–9. A new Excise Bill has been drafted.

| Gross Receipts from | 1908-9. | 1909-10. |
|---|---|---|
| | £ | £ |
| Imported liquors, &c. - | 95,997 | 98,227 |
| Country spirit - - | 14,192 | 13,441 |
| Fermented liquors - - | 152,973 | 157,498 |
| Opium - - - - | 281,034 | 264,672 |
| Fines, &c. - - - | 3,491 | 5,334 |
| Total - - | 547,687 | 539,172 |

*Central Provinces and Berar.*—The excise receipts for 1909–10, as compared with those for 1908–9, were as shown in the margin. Agricultural conditions were adverse at the time of the annual auctions, while high prices and temperance movements kept consumption down, especially in the early part of the year. The number of outstills was reduced by 200, and the number of liquor shops from 4,569 to 4,230. The rise in the price of liquor is causing *ganja* to be used instead of it.

| Gross Receipts from | 1908-9. | 1909-10. |
|---|---|---|
| | £ | £ |
| Country spirits and toddy | 314,355 | 324,344 |
| Opium - - - - | 120,818 | 126,138 |
| Hemp drugs - - - | 29,845 | 33,100 |
| Miscellaneous, including foreign liquors. | 5,182 | 5,314 |
| Total - - | 470,200 | 488,896 |

The contract supply system has been further extended, as also, temporarily, the Sadar distillery system in certain tracts. The duty on country spirit was raised. Opium and *ganja* smuggling continues to cause much trouble, and proposals for reorganising the preventive staff have been framed. The number of convictions for excise and opium offences was larger. The Excise Act has not yet been revised.

*Eastern Bengal and Assam.*—The excise revenue for the last two years has been as shown in the margin. There was again an increased consumption of *ganja*, due to the abundant crop, low prices, and agricultural prosperity. The number of country spirit shops was further reduced by 55, of *ganja* shops by 67, and of opium shops by 95. Rules for ascertaining public opinion on the licensing of shops have been put in force. During the year under report the contract distillery system was extended to the Rajshahi Division. The system, where in force, has led to an improvement in the quality of the liquor and to a diminution of drunkenness, though it has led to a great increase in illicit distillation. A new Excise Act was passed.

| Gross Receipts from | 1908-9. | 1909-10. |
|---|---|---|
| | £ | £ |
| Imported liquors - - | 9,483 | 9,639 |
| Country spirits - - | 144,898 | 147,794 |
| Opium - - - - | 188,964 | 189,589 |
| Hemp drugs - - - | 120,196 | 134,722 |
| Miscellaneous, including toddy, &c. | 5,394 | 5,262 |
| Total - - | 468,935 | 487,006 |

The treasury price of opium was raised in the Assam Valley districts, where the bulk of the opium consumption is. In 1909–10 there was again a slight decrease in the consumption, which had been increasing for some years prior to 1907–8. There was an inquiry into the smuggling of opium into Burma. Excise and opium offences were more numerous than in 1908–9.

*Madras.*—The gross excise revenue during the last two years was as shown in the margin. The contract distillery supply system is in force over the greater part of Madras, but in some small tracts non-distillery systems are in force. Over nearly the whole of the Presidency a tree tax is imposed on all palm trees tapped for fermented toddy, while shops for the retail sale of toddy are separately sold by auction. The increase in 1909–10 under country spirits and imported liquor was mainly due to increased duties, that under toddy to increased rentals and larger collections under the tree tax, and that under opium to enhanced rentals. Local committees were formed in municipal areas, while in non-municipal areas a variety of authorities was consulted. The number and location of liquor shops were revised, and large reductions were made in the number of country spirit and arrack shops. The duty on country spirits was raised from Rs. 5 to Rs. 5.10.0 per gallon in 13 districts, and the tree tax was increased in 10 districts.

| Gross Receipts from | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Country spirits | 765,194 | 783,806 |
| Toddy | 770,201 | 827,406 |
| Imported liquors | 32,987 | 40,201 |
| Opium | 68,522 | 84,899 |
| Other intoxicating drugs | 34,718 | 38,346 |
| Miscellaneous, including beer, &c. | 17,741 | 19,040 |
| Total | 1,689,363 | 1,793,698 |

The use of opium is almost restricted to the districts in the north-east of the Presidency, and to the Madras Town Circle. The quantity consumed, excluding that issued to Native States, was 44,926 seers, compared with 47,073 seers in 1908–9.

*Bombay.*—The excise revenue from Bombay (including Sind and Aden) during the last two years was as shown in the margin. Many reforms were introduced in 1909–10, and the rates of still-head duty were raised. In Sind and Bombay City there is a growing taste for foreign liquors among the well-to-do classes. The number of shops for the sale of liquors (except toddy) and drugs has been reduced by 196, of which 60 were closed on the recommendation of the local committees. The increased receipts from opium and intoxicating drugs are ascribed to better administration. Measures for further checking the illicit traffic in cocaine are under consideration.

| Gross Receipts from | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Country spirits | 820,855 | 867,112 |
| Toddy | 121,106 | 120,200 |
| Foreign and Indo-European liquors. | 23,021 | 24,808 |
| Opium | 85,891 | 80,649 |
| Other intoxicating drugs | 66,515 | 72,922 |
| Miscelloneous items | 6,728 | 6,932 |
| Total | 1,124,116 | 1,172,623 |

## Provincial Rates.

Since 1904–5 many cesses levied under the head of Provincial Rates have been abolished. In 1907–8 a further reform was adopted by the exclusion from the imperial accounts of the transactions of District Boards and of certain other local funds, which are raised locally, mainly for local purposes, and chiefly managed by local-bodies. Where the revenues are under the orders of Government, the accounts have been absorbed in the Imperial or Provincial accounts. Where the income and expenditure are clearly under local control, the fund has been excluded, except in the case of funds specially created for local purposes and administered by Government officers in an *ex-officio* capacity. The revenue from Provincial Rates amounted in 1909–10 to £539,223, made up chiefly of the cess on lands levied in Bengal and Eastern Bengal and Assam for roads, schools, &c., and of the appropriation by the United Provinces from local rates for the payment of rural police in the Agra province.

## Stamps.

The stamp revenue is derived from two great classes of stamps. Judicial or court fee stamps are provided for by the Court Fees Act (VII. of 1870), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts; non-judicial stamps by the Stamp Act (II. of 1899), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The revenue from the former class increases with the growth of litigation, and that from the latter class with the development

| — | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Sale of court fees and stamps | 2,906,004 | 3,108,275 |
| Sale of commercial and other stamps. | 1,381,740 | 1,385,737 |
| Fines and miscellaneous | 56,412 | 54,292 |
| Total | 4,344,156 | 4,548,304 |

of trade and industry. The marginal table gives the gross stamp receipts for 1908–9 and 1909–10. About one-fourth of the revenue is derived from Bengal. The increase in 1909–10 was due to more litigation and greater commercial activity. Towards the close of the year the stamp duties were raised on the issue of debentures, share warrants to bearer, transfers of shares and debentures, agreements for sale of shares and securities, bills of exchange, and probate.

## Customs.

Special import duties are levied on malt liquors, wines, spirits, arms and ammunition, salt and salted fish, opium, tobacco, and silver. The duties levied on alcoholic liquors were raised by the Indian Tariff (Amendment) Act of 4th March 1910 (No. VIII.). They are now: ale, beer, &c., 3 annas per gallon; liqueurs, perfumed spirits, &c., Rs. 13 per gallon; spirit used in drugs, medicines, or chemicals, Rs. 7:13:0 per gallon; other spirit, Rs. 9 . 6 : 0; sparkling wines, Rs. 3 : 12 : 0; and other wines, Re. 1 : 8 : 0 per gallon. Tobacco is dutiable at various rates, salt at Re. 1 per maund, and silver at 4*d.* per ounce. Petroleum pays 1½ annas per gallon, and iron and steel generally one per cent. *ad valorem*. General import duties, which had been abolished in 1882, and were re-imposed in 1894, are levied at the rate of 5 per cent. *ad valorem*. For as many articles as practicable tariff valuations are fixed, and these are revised from time to time, a general revision being made in December of each year. The chief articles on the free list are railway materials, machinery which is worked by power other than manual or animal labour, grain and pulse, living animals, coal, jute, raw cotton, raw wool, books, gold and unset precious stones. On the revival of general duties in 1894 cotton goods were at first exempted, but in December 1894 a 5 per cent. *ad valorem* duty was imposed on imported cotton goods and yarns, while an excise duty of equal amount was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns and thread, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods imported from abroad or manufactured in India at power mills, the products of handlooms being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of 82⅔ lbs. of unhusked rice (about 4*d.* per cwt.). Since the Brussels Convention took effect, sugar produced in any of the countries adhering to the Convention has been subject only to the ordinary tariff rate. Sugar entering India from the Argentine Republic and Denmark remains subject to countervailing duties.

The appended table shows the amount of the customs receipts in 1894–5 and 1895–6, when the changes above-mentioned took effect, and also those for the four most recent years.

| —— | 1894–5. | 1895–6. | 1906–7. | 1907–8. | 1908–9. | 1909–10. |
|---|---|---|---|---|---|---|
| Sea Customs, import duty: | £ | £ | £ | £ | £ | £ |
| Arms, ammunition, &c. | 10,126 | 11,403 | 10,996 | 13,816 | 10,744 | 10,604 |
| Liquors | 406,355 | 440,669 | 561,401 | 666,721 | 692,767 | 697,275 |
| Petroleum | 213,118 | 270,782 | 246,120 | 294,548 | 351,499 | 308,371 |
| Cotton manufactures | 256,631 | 776,483 | 850,479 | 998,582 | 778,376 | 816,679 |
| Silver bullion and coin | 230,557 | 231,859 | 260,637 | 341,658 | 417,121 | 353,800 |
| Other metals | 135,078 | 168,641 | 226,776 | 299,580 | 309,877 | 301,888 |
| Sugar | 630,450 | 686,725 | 284,936 | 295,431 | 340,051 | 367,485 |
| Other articles | | | 870,143 | 1,040,381 | 1,008,780 | 1,005,397 |
| Export duty on rice | 594,017 | 609,581 | 681,816 | 664,772 | 535,960 | 680,098 |
| Miscellaneous | 6,694 | 1,770 | 24,871 | 23,612 | 19,581 | 22,972 |
| Total Sea Customs | 2,483,026 | 3,197,913 | 4,018,175 | 4,639,096 | 4,464,756 | 4,564,569 |
| Land Customs | 15,884 | 13,397 | 20,351 | 28,113 | 26,932 | 25,988 |
| Excise duty on cotton manufactures | 6,897 | 40,632 | 190,947 | 223,730 | 233,232 | 264,068 |
| Miscellaneous | 10,773 | 18,672 | 17,290 | 19,087 | 14,124 | 16,321 |
| Total Net Customs Revenue | 2,516,580 | 3,270,614 | 4,246,763 | 4,910,026 | 4,739,044 | 4,870,946 |

The receipts from import duties in 1909–10 showed an increase, chiefly owing to larger imports of cotton manufactures and sugar, but silver and petroleum produced less revenue; the yield of the export duty on rice was much greater. The growing receipts from the excise duty on cotton goods made in power mills are noteworthy. Excluding revenue from salt, which is not credited to customs, about two-thirds of the revenue from imports is derived from five heads—cotton manufactures, liquors, silver, sugar, and petroleum.

## Income Tax.

The Income Tax Act (II. of 1886), applicable to the whole of India, took the place of local Acts under which various licences were required for the exercise of trades or industries. Its principal provisions are that all incomes from salaries and pensions or from interest on securities, if amounting to Rs. 2,000 per annum, shall pay 5 pies in the rupee (equal to $6\frac{1}{4}d.$ in the £); that incomes less than Rs. 2,000 shall pay 4 pies ($5d.$ in the £); that companies shall pay 5 pies in the rupee on their net profits; and that incomes under Rs. 2,000 derived from other sources shall pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, and 5 pies in the rupee on incomes of Rs. 2,000 and upwards. All incomes of less than Rs. 1,000 (£66$\frac{2}{3}$) a year were exempted by an amending Act (XI. of 1903), which substituted that taxable minimum for the former limit of Rs. 500. The tax is not levied on incomes from land or agriculture. Military salaries of less than Rs. 500 a month (£400 a year) are exempt.

The gross revenue from income tax in 1909–10 was £1,558,964, as compared with £1,553,419 in 1908–9. The proportion of revenue derived from the different sources (shown in the margin) varies but little. The number of persons assessed to income tax is only a small fraction of the population, the total in 1908–9 being 267,619. A large proportion of the revenue is collected in Calcutta and Bombay. Income tax receipts have increased with the increase in profits and salaries resulting from commercial and industrial activity, as well as through improved administration.

| | 1909–10. |
|---|---|
| | £ |
| Ordinary collections | 1,200,970 |
| Government salaries and pensions | 287,749 |
| Interest on Government securities | 59,336 |
| Other items | 10,909 |
| | £1,558,964 |

## Registration.

*General.*—The revised Registration Act (XVI. of 1908), which contained no new provisions, came into force on 1st January 1909 throughout British India, excepting Upper Burma (for which Regulation II. of 1897 still provides a less complete procedure) and certain other tracts. Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. For registration purposes, documents are divided into (*a*) those the registration of which is compulsory, or necessary to the validity of the deed, and (*b*) those which are registrable or not at the option of the holder, though liable, if unregistered, to be superseded by registered documents, subject to the equitable doctrine of notice. In the former class are instruments of gift of immovable property, or other non-testamentary documents which affect rights in such property of a value of Rs. 100 and upwards, and, with certain exceptions, annual or longer leases. Optionally registrable documents include those relating to immovable property not comprised in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As regards transfers of immovable property, however, the situation is affected, except in the Punjab and Upper Burma, by the Transfer of Property Act (IV. of 1882), as amended by Acts of 1885 and 1904. Under the provisions of the Act of 1904 the registration of mortgages of immovable property of a lower value than Rs. 100, previously optional, was made compulsory. Practically all deeds transferring immovable property have now, therefore, to be registered. Mortgages form the largest class of instruments registered. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise the great majority of all registrations. The number of optional registrations has steadily declined, partly owing to the operation of the amending Act of 1904.

The gross registration receipts in 1909–10 were £430,377 as compared with £430,936 in 1908–9; and the cost of the registration offices was £235,716, leaving a surplus of £194,661, against £199,127 in 1908–9. Fluctuations in the work of registration, especially of mortgages and sales, may be due on the one hand to bad

harvests, plague (which affects wills and deeds of gift), high prices, and declining credit, or on the other to settlement operations, the development of new lands, the growth of towns, the expansion of trade, and the general effects of economic progress. The following particulars are taken from the provincial reports for 1909.

*Bengal.*—There was a decrease of 2·6 per cent. in the number of deeds registered. This is ascribed to satisfactory harvests, owing to which mortgages and sales fell off, and to settlement operations, which increased the number of leases. In some districts the effects of scarcity and high prices persisted, causing more registrations under mortgages and sales. In the Chota Nagpur Division leases and sales decreased.

*Eastern Bengal and Assam.*—There was an increase of under 1 per cent. in the number of deeds registered. The small number of sales was an indication of the improved condition of the people. In the Rajshahi Division, however, a partial failure of crops led to an increase in mortgages.

*United Provinces.*—There was a growth of 10·22 per cent. in the number of registrations. Loan transactions for repayment of *takavi* advances, renewals of leases, the stringency caused by continued high prices, and growing trade activity are among the varied causes adduced for this growth.

*Punjab.*—There was again a large increase in the number and value of compulsory registrations, no comprehensive explanation of which is possible. The normal decline in optional registrations, which had been interrupted in 1908, was continued.

*North West Frontier Province.*—The registrations increased in number and value. Sales were numerous in the Dera Ismail Khan district owing to the great demand for land in the vicinity of the new Paharpur Canal. More than two-thirds of the mortgages were in the Peshawar district.

*Burma.*—The compulsory registrations affecting immovable property showed a falling-off of 3 per cent. in number and 21 per cent. in value. The value of instruments relating to moveables increased. The variations were chiefly due to smaller investments in land in Rangoon and Mandalay, and to fluctuations in land investments in Minbu, Magwe, and Shwebo.

*Central Provinces and Berar.*—The number and value of registrations again markedly increased, the percentage increase in number being 23 in the Central Provinces and 19 in Berar. Good and bad crops are equally assigned as causes, but the development of the country and the spread of a knowledge of legal requirements are important factors. Leases are rapidly increasing in the Central Provinces.

*Madras.*—In Madras the number of registrations, which has been steadily advancing for some years, rose by 2·2 per cent. to 1,271,404 in 1909, the increase being chiefly under leases (other than perpetual leases), sales, and mortgages.

*Bombay.*—The number of registrations increased by of 10 per cent., owing chiefly to a good season and to borrowings for Hindu marriages. There was a considerable growth in compulsory registrations, while optional registrations declined.

## Opium.

*General.*—The opium revenue is raised partly by a monopoly of the production of the drug in Bengal and the United Provinces, and partly by the levy of a duty on all opium exported from Native States. Poppy cultivation in British territory, excepting in certain small areas, is permitted only in parts of Bengal and of the United Provinces, where the crop is grown under the control of Government, which determines the total area to be cultivated each year. The cultivator of opium (known as Bengal opium) in these monopoly districts must receive a licence and is granted advances to enable him to prepare the land for the crop. He is required to deliver the whole of his outturn of crude opium at the fixed price of Rs. 6 per seer to Government agents, by whom it is despatched to the Government factories at Patna and Ghazipur. The relatively small supply of prepared opium required for consumption in India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. The chests become the property of the purchasers immediately after sale, but must be shipped under passes granted by the Board of Revenue and subject to conditions which prevent the opium from being consumed in India. The price obtained at the Calcutta sales, less the cost of production, is the revenue from Bengal "provision" opium. Opium (known as Malwa opium) is grown in Baroda and in some of the Native States of Rajputana and

Central India, chiefly Indore, Gwalior, Bhopal, and Mewar. The Government of India interfere in no way with its production or local consumption; but Malwa opium may not pass into British territory, whether for export by sea or for consumption, without a pass, which is granted only on payment of a heavy duty. The duty on Malwa opium intended for export was fixed at Rs. 600 per chest with effect from May 1904, and remained at that figure during the year under report.

Towards the end of 1906 edicts were issued by the Chinese Government ordering that within 10 years the growth and the consumption of opium in China should be suppressed. Proposals were made that the Government of India should co-operate in this object by gradually restricting the amount of opium exported from India to China. By an arrangement which took effect from January 1908 the quantity of opium (including Malwa opium) exported from India was limited to 61,900 chests in 1908, 56,800 chests in 1909, and 51,700 chests in 1910. Papers relating to the progress of the opium reforms in China, have been presented to Parliament (Cd. 4967). A report on the proceedings of the Shanghai International Opium Commission of 1909 has also been presented (Cd. 4898). Under a new agreement, signed on 8th May 1911, the cessation of the trade will be accelerated if the native production of opium in China is suppressed before the expiry of the 10 years' period.

The opium revenue and expenditure during recent years have been as follows:—

| | 1903-4. | 1904-5. | 1905-6. | 1906-7. | 1907-8. | 1908-9. | 1909-10. |
|---|---|---|---|---|---|---|---|
| Opium Receipts:* | £ | £ | £ | £ | £ | £ | £ |
| Sales of Bengal opium | 4,678,371 | 5,079,541 | 4,703,574 | 4,895,505 | 4,401,988 | 4,234,444 | 4,546,147 |
| Duty on Malwa opium | 871,383 | 749,125 | 569,400 | 553,788 | 620,480 | 1,398,780 | 724,140 |
| Excise opium, and miscellaneous | 186,291 | 192,833 | 195,806 | 211,235 | 222,518 | 251,564 | 264,396 |
| Total | 5,736,045 | 6,021,499 | 5,468,780 | 5,660,528 | 5,244,986 | 5,884,788 | 5,534,683 |
| Opium expenditure (chiefly in Bengal) | 2,225,744 | 1,967,085 | 1,892,441 | 1,913,292 | 1,669,441 | 1,236,088 | 1,110,155 |
| Net Opium Revenue £ | 3,510,301 | 4,054,414 | 3,576,339 | 3,747,236 | 3,575,545 | 4,648,700 | 4,424,528 |

*Exclusive of the licence fees and duty on opium consumed in India, amounting in 1909–10 to £992,034, included under Excise.

Notwithstanding a reduction in the number of chests of Bengal opium sold for export (*see* below), the receipts in 1909–10 were higher than in 1908–9 and 1907–8, owing to the higher prices realised at the auction sales. Scarcity of opium in China and speculative buying caused this upward movement, and during 1910–11 opium has reached the unprecedented average price of Rs. 2,925 per chest. The large excess in the net opium revenue of 1909–10 over that in the years 1903–4 to 1907–8 was chiefly due to decreased expenditure. In 1908, when the agreement with China took effect, the Indian Government had a large reserve stock. This has been extensively drawn upon and the manufacture of new opium has been correspondingly curtailed.

*Bengal.*—The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop failed, is shown in the margin, together with the number of chests produced and sold for export and the average price realised during the last five years. High prices of food-crops, increased wages of labour, and bad seasons have discouraged poppy cultivation.

| Year. | Acres. | No. of Chests Produced. | No. of Chests Sold for Export. | Average Price in Rs. |
|---|---|---|---|---|
| 1905–6 | 613,996 | 48,750 | 49,200 | 1,436 |
| 1906–7 | 564,585 | 38,126 | 52,800 | 1,391 |
| 1907–8 | 488,548 | 40,001 | 48,900 | 1,351 |
| 1908–9 | 361,832 | 28,125 | 45,900 | 1,384 |
| 1909–10 | * | * | 42,300 | 1,612 |

* Figures not available.

*Bombay.*—The number of chests of Malwa opium passed at the scales in 1909–10 was 13,917. The quantity imported and lodged in the Bombay opium warehouses was 8,848 chests, as against 29,047 chests in 1908–9; while 1,088 chests were sold for consumption in the Presidency, including Native States. The exports of Malwa opium to China in recent years are stated in the margin. The decrease in 1909–10 was due to the limitation imposed by Government on the opium exports for the calendar year. The average prices for opium in the Bombay market during the year under report, including export duty, were Rs. 1,346 per chest for one-year old, and Rs. 1,646 per chest for two-year old opium, against Rs. 1,186 and Rs. 1,305 respectively in 1908–9. The rise in prices was due to restrictions on exportation, and merchants made large profits.

| | Chests Exported. |
|---|---|
| 1905–6 | 14,088 |
| 1906–7 | 13,322 |
| 1907–8 | 16,858 |
| 1908–9 | 20,695 |
| 1909–10 | 13,192 |

# CHAPTER VI.

## AGRICULTURE.

SEASON AND CROP REPORTS. | AGRICULTURAL PRODUCE.
CO-OPERATIVE CREDIT SOCIETIES.

The present chapter gives an account of the conditions prevailing in each province during the agricultural year 1909–10, together with some information regarding the outturn of agricultural produce and the progress of co-operative credit societies.

### SEASON AND CROP REPORTS.

*Bengal.*—In Orissa and Chota Nagpur conditions were generally favourable for the autumn crops, but in parts of Lower Bengal the crops suffered from floods. The weather was very favourable for winter crops throughout the province, although excessive rain, a cyclone, and insect pests caused damage in some parts. The spring season was on the whole favourable. The outturns of food crops in all three harvests were satisfactory, being 86, 110, and 90 per cent. of the normal respectively. The food stocks were consequently sufficient in most districts. The winter paddy crop was 110 per cent. and the sugar-cane crop 86 per cent. of the normal. The irregular, and sometimes excessive, rainfall damaged the jute crop, the outturn of which was 84 per cent. of the normal. The area cropped in 1909–10 was about 43 million acres. About 85 per cent. of the normal cropped area is under food crops. The three rice crops of the year covered over 26 million acres, exceeding the normal by about 700,000 acres. There was some decrease in the area under jute. The condition of the cattle was generally satisfactory. Agricultural improvements are being undertaken in certain districts containing water-logged lands or lands subject to inundation by sea-water. The year as a whole was distinctly satisfactory.

*United Provinces.*—The rainy season was on the whole favourable, though the rains were too copious at the beginning, and the autumn crop, though good, did not quite answer early expectations. The cold season was favourable everywhere, and the spring crop a bumper one, except in some parts of the hill districts. The area under spring crops went up by 2½ million acres. In Agra conditions were much better than in Oudh. The total cultivated area, nearly 36 million acres, was rather above the normal. All the autumn crops, except maize, turned out satisfactorily. The outturn of the spring crops was much better in most districts than in 1909. The year was unfavourable for cattle in regard to disease.

*Punjab.*—The monsoon of 1909 reached the province in good time, and was one of the best of recent years as regards both total rainfall and distribution. The area, however, placed under autumn crops was slightly below normal. Outturns were generally very satisfactory, in spite of pests. The early winter was dry, but good rains succeeded. The *rabi* was one of the best for years, the unirrigated crop being particularly excellent. The total area sown was about 29½ million acres, or about 9 per cent. above normal. The proportion of the autumn to the spring harvest was as 41 to 59. Larger areas were placed under rice, sugar-cane, oilseeds, wheat, and gram, but smaller areas under jowar, bajra, cotton, and barley. The high price of gram caused very extensive sowings of that crop in the *rabi*. The outturn of gram and oilseeds was specially satisfactory. Failures were abnormally low in both harvests. The total area of crops sown on irrigated land was about 10¼ million acres, including nearly 6¼ million acres served by Government canals. The area irrigated included nearly 3 million acres irrigated by 243,235 masonry wells and 30,750 non-masonry wells. Several canal villages suffered from water-logging. Cattle were a good deal affected by disease.

*Punjab Canal Colonies.*—The year was very favourable, though the monsoon rains were rather heavy. The crops, especially the spring crop, were excellent, and prices continued high. The great prosperity of these tracts is shown by the prices paid for market sites on new railway lines. In an auction at Jaranwala, waste land, having a prospective value for urban purposes, realised over £3,000 per acre.

The colonists readily adopt agricultural improvements. Administrative control of the Chenab Colony was made over during the year to the Commissioners of the divisions in which it is included. The complete charge of certain Jhang villages was transferred to the Deputy Commissioner of the district. The Jhelum Colony promises to be a valuable source for the supply of remounts and mules to the army. Special conditions are imposed in the grants in this colony with regard to horse-breeding operations, which have been a marked success, due chiefly to the peasant grantees. The Chunian colony benefited greatly by high prices for its crops, and the Jhang colony had a fair year.

*North-West Frontier Province.*—The monsoon rainfall was generally above normal, and, except in Dera Ismail Khan, where heavy floods did great damage, the autumn harvest was on the whole fairly good. The spring harvest was also good. Hail caused damage in three districts. The total area sown was nearly 2,823,667 acres, while the area harvested was 2,346,329 acres. Wheat, the most important crop, occupied 1,028,161 acres, and the area was 11 per cent. above normal. The outturn of wheat was 21 per cent. above normal. Fodder was generally sufficient, but the deaths of cattle from contagious diseases increased.

*Central Provinces and Berar.*—The monsoon was, on the whole, favourable and the rainfall well distributed. The cropped area increased by a million acres, and, while both wheat and cotton crops over large areas gave bumper yields, no crop gave much less than an average outturn. There was exceptionally great mortality among cattle.

*Eastern Bengal and Assam.*—The spring rains were somewhat in defect, while the autumn rainfall was ill-distributed. The total cropped area was 31¼ million acres, including 17¼ million under rice. The jute area was 2,201,000 acres, or less than in 1908–9, owing partly to unfavourable weather for sowing and partly to low prices of jute. There is a steady expansion of cultivation in Assam, where the population is sparse, and where waste land is abundant and can be brought under cultivation at low rates of revenue. The outturn of rice was 38 per cent. more than in the previous year, while the jute crop was about 82 per cent. of the normal.

*Burma.*—The agricultural year 1909–10 was, on the whole, very prosperous, especially in the dry zone districts of Upper Burma. Excessive rain in November somewhat injured the rice crop in Lower Burma, thus impairing the outturn. The heavy rains, however, favoured pulses and other winter dry crops, and the spring rice crop. There was an increase in the area cropped, but the area on which crops failed to mature was larger than in 1908–9. The area under crops rose to over 13¾ million acres. The area under rice, the principal crop, was 10 million acres. The outturn of rice in Lower Burma was 91 per cent. of the normal. The areas devoted to winter rice and sesamum were larger, and to millets and ground-nuts smaller. The area under rubber was 11,622 acres. The tank irrigation systems in the dry zone proved very valuable. The year was a fair one for cattle owners.

*Madras.*—The south-west monsoon was good and fairly distributed, but the rainfall of the north-east monsoon was below normal. The total crop area was over 36¼ million acres, which was rather under the normal. The rice crop was above normal, and covered over 10¼ million acres; other food-grains were grown on 18½ million acres. The area under cotton was more than 2 million acres. The area under ground-nuts again showed a large increase, due to the commercial importance of the crop. Tobacco also increased. Castor-seed, gingelly, cholam, ragi, and indigo fell away. The outturn of crops was generally below normal. There was a decline in the mortality of cattle from disease.

*Bombay.*—Although the monsoon conditions were rather late in being established, the autumn rains were generally equal to the average, but the spring rains were in defect. The total area cropped, 29 million acres, was the largest for 14 years, most of the increase on 1908–9 (675,000 acres) being under cotton and food crops. The area under cotton increased by 18 per cent., and was 26 per cent. above the average. Moreover, the crop throve everywhere and the yield per acre was 30 per cent. above that of 1908–9, while prices rose to a high level. The estimated outturn of food-grains shows an advance on 1908–9 of 31 per cent. In Sind there was a general shortage of rain and low and short inundation in the desert and hilly tracts, which curtailed the area sown and affected the outturn. The area in Sind under crops declined, but the estimated outturn of food-grains was better. The year was comparatively free from cattle disease.

## Agricultural Produce.

*(For further details see Statistical Abstract for British India, Tables 119 to 123.)*

The following table shows the area under the principal crops, in British India, and their territorial distribution, for 1909–10. The crop area is always greater than the area of cultivated land, owing to double cropping. The figures represent thousands of acres (omitting 000).

| Administrations. | Rice. | Wheat. | Millets (Jawar, Bajra and Ragi). | Gram (Pulse). | Other Food-Grains and Pulses. | Total Food-Grains and Pulses. | Oilseeds. | Sugar. | Cotton. | Jute and other Fibres. | Total area cropped. | Net Area cropped, (after deducting area cropped more than once). |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bengal - - | 26,134 | 1,419 | 1,234 | 1,011 | 7,733 | 37,531 | 1,979 | 377 | 68 | 600 | 43,207 | 36,574 |
| Eastern Bengal and Assam. | 17,316 | 72 | 11 | 62 | 1,268 | 18,729 | 1,945 | 173 | 48 | 2,238 | 26,060 | 21,059 |
| United Provinces - | 6,120 | 6,578 | 5,452 | 4,992 | 15,018 | 38,160 | 1,029 | 1,038 | 1,224 | 132 | 44,095 | 36,595 |
| Punjab - - | 799 | 8,676 | 4,135 | 4,745 | 4,504 | 22,859 | 1,578 | 417 | 1,277 | 55 | *29,648 | 25,593 |
| North West Frontier Province. | 41 | 1,028 | 328 | 206 | 908 | 2,511 | 107 | 31 | 33 | 1 | 2,824 | 2,397 |
| Burma - - | 10,080 | 38 | 879 | 63 | 748 | 11,808 | 1,277 | 140 | 202 | 1 | 14,259 | 13,858 |
| Central Provinces and Berar. | 4,838 | 3,064 | 5,055 | 1,170 | 5,007 | 19,134 | 2,399 | 21 | 4,083 | 168 | 26,472 | 24,886 |
| Madras - - | 10,359 | 19 | 11,308 | 132 | 6,930 | 28,748 | 2,529 | 182 | 2,029 | 224 | 36,388 | 32,217 |
| Bombay and Sind - | 2,961 | 1,830 | 14,157 | 715 | 4,016 | 23,679 | 1,735 | 63 | 4,167 | 163 | 30,307 | 29,168 |
| Minor Areas - - | 83 | 46 | 92 | 57 | 227 | 505 | 47½ | — | 41 | — | 660 | 565 |
| Total 1909–10 - | 78,731 | 22,770 | 42,651 | 13,153 | 46,359 | 203,664 | 14,625 | 2,442 | 13,172 | 3,582 | 253,920 | 222,912 |
| „ 1908–9 - | 72,800 | 21,199 | 45,252 | 11,264 | 46,321 | 196,836 | 14,105 | 2,408 | 12,959 | 3,558 | 246,189 | 218,040 |

* This total represents the area sown, but details of each crop are conventional harvested areas of normal productiveness, the sum of which falls short of this total.

Among "other food grains and pulses" may be mentioned barley, 8,105,000 acres, of which 5,203,000 are in the United Provinces, 1,094,000 in the Punjab, and 1,419,000 in Bengal, and maize, 6,858,000 acres, of which 2,475,000 acres are in the United Provinces, 1,248,000 in the Punjab, and 1,878,000 in Bengal. Out of 526,000 acres under tea, 438,000 are in Eastern Bengal and Assam, and 53,000 in Bengal, while out of 1,013,000 acres under tobacco, 303,000 are in Eastern Bengal and Assam, 144,000 in Bengal, and 201,000 in Madras.

Particulars for 1909–10 regarding some of the more important staples of Indian agriculture are given below. The figures are derived from returns of crop forecasts and they include Native States as well as British India.

*Rice.*—Nearly one-third of the cropped area in British India is under rice. The provinces for which statistics are given in the table below ordinarily include 78 per cent. of the Indian rice crop. The figures are in thousands (omitting 000). Other provinces, notably the United Provinces, the Central Provinces, and Bombay and Sind, produce a large quantity of rice. In 1909–10 there was a large increase in the acreage under winter rice in Bengal (which produces about one-third of the total of Indian rice), and the outturn was very large despite damage in some districts by heavy rain and floods, cyclones, and insect pests. Although Bengal is the principal producer of rice, Burma is the largest exporter. The foreign exports of rice, which are subject to an export duty of three annas per maund (about 6*s.* 10*d.* per ton), rose in 1909–10 to 1,960,000 tons, valued at £12,161,000. About 75 per cent. of the total was shipped from Burma. The price of white rice in Burma, which had steadily risen in recent years, fell considerably in 1908–9 and again in 1909–10. The salient features of the Burma trade were a phenomenal crop and large shipments from Burma to foreign countries. The coastwise shipments amounted to the extremely high figure of 1,038,000 tons, most of it being sent to Bengal, Eastern Bengal and Assam, Bombay, and Madras.

| Province. | Area in Acres. | | | Yield in Tons of Cleaned Rice. | | |
|---|---|---|---|---|---|---|
| | Average of five years to 1907–8. | 1908–9. | 1909–10. | Average of five years to 1907–8. | 1908–9. | 1909–10. |
| Bengal - - | 24,434 | 22,450 | 26,117 | 9,965 | 8,242 | 14,650 |
| Eastern Bengal and Assam. | 16,162 | 15,708 | 16,693 | 6,306 | 5,889 | 7,667 |
| Madras - - | 8,421 | 7,362 | 7,965 | 2,957 | 2,185 | 2,439 |
| Burma - - | 6,922 | 7,569 | 7,475 | 3,081 | 3,233 | 3,168 |
| Total - | 55,939 | 53,089 | 58,250 | 22,309 | 19,549 | 27,924 |

*Wheat.*—Wheat occupies usually about 10 per cent. of the whole cultivated area. The bulk of it is sown in autumn and reaped in April and May. The area under wheat has greatly expanded with the extension of irrigation. More than half of it is in the Punjab and the United Provinces, and the greater part in each of these provinces is irrigated. The marginal table shows the area and yield of wheat, the figures being in thousands (omitting 000). The year was favourable in the important wheat-growing provinces, and especially in the Punjab. In other provinces some local damage was done by rats and by strong winds. Both area and yield were above normal.

| Province. | Average of five years to 1907–8. | | 1908–9. | | 1909–10. | |
|---|---|---|---|---|---|---|
| | Area. | Yield. | Area. | Yield. | Area. | Yield. |
| | Acres. | Tons. | Acres. | Tons. | Acres. | Tons. |
| Punjab - - | 9,152 | 3,345 | 9,002 | 3,062 | 9,206 | 3,455 |
| United Provinces | 6,685 | 2,279 | 5,695 | 2,124 | 6,514 | 2,985 |
| Central Provinces and Berar. | 3,349 | 777 | 2,773 | 704 | 3,065 | 956 |
| Bombay and Sind | 2,396 | 538 | 2,294 | 517 | 2,102 | 546 |
| Central India - | 2,032 | 461 | 2,023 | 393 | 2,283 | 508 |
| Bengal - - | 1,245 | 395 | 1,255 | 320 | 1,428 | 541 |
| North-West Frontier Province. | 1,005 | 274 | 1,020 | 213 | 1,008 | 235 |
| Hyderabad - - | 1,034 | 82 | 1,098 | 72 | 1,097 | 68 |
| Rajputana - - | 852 | 150 | 807 | 174 | 987 | 237 |
| Elsewhere - - | 152 | 44 | 78 | 15 | 76 | 26 |
| Total - - | 27,902 | 8,345 | 26,045 | 7,594 | 27,766 | 9,557 |

The exports of wheat and wheat-flour are subject to great fluctuations, as the marginal figures show. The export demand for wheat has led to an extension of cultivation. This is very beneficial to India, partly because the crop is a profitable one, and partly because in years of scarcity the rise in prices renders the grain available for home consumption. In a famine year, like 1900–1, the export falls to a trifling quantity. The quality of grain shipped has recently improved through a reduction in the proportion of dirt, seeds, &c. intermixed with the grain. The wheat exported in one financial year is drawn mainly from the crop of the previous year, and the heaviest shipments are from May to August. Exports of flour show no tendency to increase to any considerable extent.

| — | Wheat. | Flour. |
|---|---|---|
| | Tons. | Tons. |
| 1900–1 | 2,500 | 24,800 |
| 1–2 | 366,100 | 26,500 |
| 2–3 | 514,600 | 35,900 |
| 3–4 | 1,295,600 | 40,500 |
| 4–5 | 2,150,000 | 51,700 |
| 5–6 | 937,500 | 44,950 |
| 6–7 | 801,400 | 40,900 |
| 7–8 | 880,500 | 37,200 |
| 8–9 | 109,750 | 30,100 |
| 9–10 | 1,050,600 | 35,100 |

*Sugar.*—The area under sugar was reported to be 2,127,000 acres in 1909–10, and the yield was estimated at 2,125,300 cwt. The area was somewhat smaller than in 1908–9, but the yield larger owing to the favourable season. Of the total area, 1,037,600 acres were in the United Provinces, where the acreage decreased. Bengal contained 351,600 and the Punjab 411,700 acres. These figures, however, are not very reliable, as in many large sugar-growing areas no accurate records are available, and sugar-cane is often grown in small and irregular clumps whose extent is not easily estimated. To the sugar-cane cultivated in British India must be added the extensive crops grown in Native States. In estimating the total output of sugar account must also be taken of the large production of palm sugar, chiefly in Bengal, Madras, and Burma. By no means all of the sugar produced is converted into "refined" sugar; a considerable quantity both of cane in the raw state and of the unrefined sugar or *gur* is consumed as food. For this sugar high prices can be secured in spite of the increasing competition of cheap sugar imported from abroad. The imports of sugar, including confectionery and molasses, during recent years are given in the margin, the figures representing for the most part refined sugar. The imports from Austria-Hungary are of beet sugar, and those from Mauritius and Java, of cane sugar. The large increase in the imports from Java is remarkable. The countervailing duties imposed in 1899 and subsequent years have not been levied since 1903 on the produce of countries which adhered to the Brussels Sugar Convention and abolished sugar bounties.

| Countries. | 1907–8. | 1908–9. | 1909–10. |
|---|---|---|---|
| | Tons. | Tons. | Tons. |
| Java - - - | 357,750 | 358,035 | 437,503 |
| Mauritius - - | 151,965 | 139,818 | 136,650 |
| Austria-Hungary - | 34,759 | 93,904 | 38,276 |
| Other Countries - | 14,514 | 12,155 | 18,044 |
| Total - - | 558,988 | 603,912 | 630,473 |

*Tea.*—The marginal table furnishes an estimate of the cultivation and the production of tea in India during the years 1907 to 1909; for Southern India and Travancore the figures are not reliable. Since 1885 the area under cultivation has increased by 95 per cent., and the production by 267 per cent. The production of green tea was 2,678,000 lbs. in 1909, as against 3,027,000 lbs. in 1908. During 1908 the tea gardens employed 515,950 persons permanently and 81,126 temporarily. The capital invested by joint stock companies in tea production is returned at £16,675,000, and, in addition, a large but unknown quantity of private capital is invested. The prices of the principal grades of tea showed a substantial increase in 1909. Consignments of tea to London on optional bills of lading tend to be more and more replaced by direct shipments. A marked feature of the Indian tea trade in recent years has been the large increase in sales to Russia, which took, in 1909, 10 million lbs. direct, 6½ million lbs. *viâ* the United Kingdom, and a large but unknown quantity *viâ* China. The direct exports of Indian tea by sea during the last three years are returned as shown in the margin.

| Province. | Area in thousands of Acres. | | | Production in thousands of Lbs. | | |
|---|---|---|---|---|---|---|
| | 1907. | 1908. | 1909. | 1907. | 1908. | 1909. |
| Eastern Bengal and Assam. | 428 | 433 | 438 | 210,907 | 211,435 | 227,095 |
| Bengal - - | 54 | 54 | 53 | 13,503 | 14,994 | 13,166 |
| Madras - - | 11 | 15 | 16 | 3,471 | 4,436 | 5,326 |
| United Provinces | 8 | 8 | 8 | 2,295 | 2,010 | 2,206 |
| Punjab - - | 9 | 9 | 9 | 1,238 | 1,438 | 1,414 |
| Travancore and Cochin. | 26 | 27 | 29 | 12,749 | 12,594 | 13,354 |
| Burma - - | 2 | 2 | 2 | 506 | 458 | 246 |
| Total - - | 538 | 548 | 555 | 244,669 | 247,365 | 262,807 |

| Countries. | 1907. | 1908. | 1909. |
|---|---|---|---|
| | Millions of Lbs. | Millions of Lbs. | Millions of Lbs. |
| To United Kingdom - - | 173·9 | 173·2 | 187·1 |
| „ Russia - - - | 15·4 | 18·1 | 10·3 |
| „ Australia - - - | 10·4 | 8·3 | 7·0 |
| „ Canada - - - | 5·4 | 6·9 | 6·0 |
| „ Ceylon - - - | 9·3 | 5·0 | 13·9 |
| „ China, Hong Kong - | 1·0 | 1·0 | 1·6 |
| „ China, Treaty Ports - | 6·6 | 5·8 | 5·8 |
| „ Germany - - - | 0·9 | 1·3 | 2·8 |
| „ Persia - - - - | 1·8 | 0·9 | 0·5 |
| „ Turkey in Asia - - | 3·7 | 3·3 | 2·8 |
| „ United States - - | 2·2 | 2·1 | 2·1 |
| „ other Countries - - | 2·8 | 3·6 | 3·1 |
| Total - - - | 233·4 | 229·5 | 243·0 |

The growing appreciation of the superior richness and strength of Indian tea is shown by the increased imports into this country. In 1875 the United Kingdom drew 86 per cent. of its supplies from China, and 13 per cent. from India, while in 1909 only 5 per cent. came from China and 54 per cent. from India. If the quantities retained for home consumption be taken, the proportion of India in 1909 was over 56 per cent., and of China less than 3 per cent.

*Jute.*—India has a virtual monopoly of the production of jute, which is chiefly grown in Northern and Central Bengal and the eastern districts of Eastern Bengal. There was an increase in the cultivated area in 1910. The estimated acreage and outturn in recent years are as shown in the margin. These figures do not include statistics for Nepal, Madras, and Upper India, the outturn of which was reported to be 81,300 bales. The harvests of 1908 and 1909 were much under-estimated. The total crop in 1909, according to the Bengal Chamber of Commerce, amounted to 8,864,800 bales. The year 1909–10 was not very prosperous. For the five years ended 1908–9, the average price per bale at Calcutta was Rs. 45.0.1, the price in 1906–7 being as high as Rs. 60.4.4 per bale. In 1909–10 the average price fell to Rs. 32.1.4.

| Year. | Acreage. | Outturn in Bales (of 400 lbs. each). |
|---|---|---|
| 1908 | 2,856,700 | 6,399,000 |
| 1909 | 2,876,600 | 7,206,600 |
| 1910 | 2,937,800 | 7,932,000 |

The total Indian consumption of raw jute in 1909–10 was estimated at 4,392,900 bales (of 400 lbs.). The exports were 18 per cent. smaller in quantity than in 1908–9, while the value declined by 24 per cent. In addition there was a large export of jute manufactures, as the marginal table shows (figures in thousands omitting 000). Of the raw jute exports in 1909–10, nearly 41 per cent. went to the United Kingdom, over 22 per cent. to Germany, under 10 per cent. to the United States, and over 11 per cent. to France. The fluctuations in exports of raw jute are more marked than those in exports of jute manufactures.

| Year. | Raw Jute. | | Jute Manufactures. | Total Exports. Value. |
|---|---|---|---|---|
| | Quantity. | Value. | Value. | |
| | Cwts. | £ | £ | £ |
| 1907–8 | 14,192 | 11,982 | 12,198 | 24,180 |
| 1908–9 | 13,880 | 13,223 | 10,491 | 23,714 |
| 1909–10 | 14,608 | 10,059 | 11,398 | 21,457 |

*Cotton.*—One of the most important crops for the grower, the Indian manufacturer, and the exporter, is cotton. The estimated area and yield of cotton in India are returned as shown in the table below for the last three years. The figures are in thousands (omitting 000). The season was favourable. While the area was about 1 per cent. greater in 1909–10, the total estimated yield was no less than 22 per cent. greater. The crop was larger than any recorded, except that of 1906–7. Doubt, however, is thrown on forecasts of yield by comparing them with a computation based on the total of the net exports and the Indian consumption of cotton, which for the year to 30th September 1909, was 4,484,000 bales.

| Province. | 1907–8. | | 1908–9. | | 1909–10. | |
|---|---|---|---|---|---|---|
| | Area (Acres). | Yield in Bales (of 400 lbs. each). | Area (Acres). | Yield in Bales (of 400 lbs. each). | Area (Acres). | Yield in Bales (of 400 lbs. each). |
| Madras | 1,855 | 198 | 1,576 | 162 | 1,636 | 176 |
| Bombay, with Native States, Sind, and Baroda | 7,360 | 1,174 | 6,500 | 1,383 | 6,269 | 1,695 |
| United Provinces | 1,461 | 268 | 1,392 | 426 | 1,241 | 384 |
| Punjab and North-West Frontier Province. | 1,522 | 365 | 1,616 | 336 | 1,467 | 406 |
| Central Provinces and Berar | 4,432 | 595 | 4,176 | 766 | 4,229 | 1,014 |
| Hyderabad | 3,100 | 293 | 2,902 | 307 | 3,401 | 380 |
| Burma | 195 | 29 | 204 | 41 | 196 | 32 |
| Central India | 993 | 55 | 978 | 144 | 1,057 | 220 |
| Rajputana | 438 | 91 | 389 | 79 | 446 | 142 |
| Bengal | 70 | 14 | 64 | 14 | 67 | 17 |
| Eastern Bengal and Assam | 79 | 24 | 97 | 21 | 98 | 17 |
| Mysore | 84 | 6 | 65 | 3 | 81 | 6 |
| Ajmere-Merwara | 41 | 10 | 40 | 9 | 39 | 13 |
| Total | 21,630 | 3,122 | 19,999 | 3,691 | 20,227 | 4,502 |

The exports of raw cotton from India in recent years have been as shown in the margin. The exports of 1909–10 were mainly furnished from the crop of 1908–9, when the season was very unfavourable. Prices were considerably higher than in the preceding year. The bulk of the Indian cotton exported goes to Japan and Western Europe. Very little goes to England, as Lancashire requires a finer class of cotton than India can as yet readily supply.

| | Cwts. | | £ |
|---|---|---|---|
| 1907–8 | 8,562,000 | valued at | 17,135,000 |
| 1908–9 | 6,798,400 | „ | 13,179,000 |
| 1909–10 | 8,915,900 | „ | 20,851,000 |

*Oil seeds.*—The area under, and the yield of, the main oil-seed crops of India are given approximately in the margin. The figures are in thousands (omitting 000). The rape and mustard-seed crop is grown chiefly in the United Provinces, the Punjab, Eastern Bengal and Assam, and Bengal; linseed in the United Provinces, the Central Provinces, Bengal, and Hyderabad; sesamum

| Seed. | Average of five years to 1907–8. | | 1908–9. | | 1909–10. | |
|---|---|---|---|---|---|---|
| | Area. | Yield. | Area. | Yield. | Area. | Yield. |
| | Acres. | Tons. | Acres. | Tons. | Acres. | Tons. |
| Rape and mustard | 5,955 | 941 | 6,029 | 988 | 6,418 | 1,223 |
| Sesamum | 4,907 | 432 | 4,988 | 464 | 5,088 | 516 |
| Linseed | 3,553 | 371 | 2,997 | 298 | 3,195 | 428 |
| Groundnut | 582 | 289 | 1,091 | 485 | 940 | 414 |

(til or jinjili) in the United Provinces, the Central Provinces, Bombay, Madras, and Hyderabad; while the groundnut area lies chiefly in Madras, Bombay, and Burma. The general seasonal conditions were on the whole favourable, except in Bengal.

Exports of seeds have been as shown in the margin for the last three years (in 000 cwts.). The quantity and value exported in 1909–10 exceeded those of 1908–9 (a bad year) by 67 and 60 per cent. respectively. The value, £12,484,000, was a record. About 52 per cent. of the seeds were shipped from Bombay, 19 per cent. from Sind, and 16 per cent. from Bengal. The principal markets for Indian oil seeds are France, Germany, the United Kingdom, Belgium, Italy, and Austria-Hungary. In linseed India suffers from the competition of Argentina and Russia. The trade in Indian cotton seed, which has now attained large dimensions, is of comparatively recent growth.

| Seed. | 1907–8. | 1908–9. | 1909–10. |
|---|---|---|---|
| | Cwts. | Cwts. | Cwts. |
| Linseed - | 6,198 | 3,210 | 4,677 |
| Rape - - | 5,343 | 2,766 | 6,629 |
| Cotton - | 4,250 | 3,683 | 5,650 |
| Sesamum - | 1,553 | 1,657 | 2,984 |
| Groundnuts - | 1,524 | 1,782 | 3,243 |
| Castor - | 1,994 | 1,650 | 1,901 |
| Poppy - | 1,257 | 790 | 853 |
| Other sorts - | 1,066 | 705 | 1,210 |
| Total - | 23,185 | 16,243 | 27,147 |

## Co-operative Credit Societies.

*(For further details see Statistical Abstract for British India, Table* 117.)

These societies (formed under the Co-operative Credit Societies Act of 1904) have been started by Government as an experiment, in order that the poorer classes, and more particularly the cultivators, may be enabled to borrow money at reasonable rates, and may at the same time learn self-help and self-dependence. The registrars are Government officials, and Government aid is given in various ways, but aid is also enlisted from educated non-official gentlemen with local influence.

The societies are divided into central, rural, and urban societies. A Central Society is an institution the members of which are representatives of a number of small affiliated societies standing to it in the same relation as individual members stand to their own society. It lends only to other societies. It is empowered to raise loans or accept deposits, as may be advisable in the interest of the affiliated societies, the profits being credited to a reserve fund upon which each society has a claim in the case of bad debts caused not by mismanagement but by misfortune or calamity. A Central Society is in a position to deal with capitalists or with joint stock banks, and to raise money on more favourable terms than is possible for the smaller societies. There are three Central Societies in the United Provinces, three in Madras, six in Bombay, four in Bengal, seven in the Punjab, one in Burma, one in Ajmere-Merwara, and four in the Central Provinces and Berar, all with limited liability, besides one in the last province, and one in Bombay with unlimited liability. No fewer than 16 of these were formed in 1909–10. District Banks, which are of the nature of joint-stock lending societies, exist as a regular part of the system in the United Provinces and Punjab. In the Punjab they are central societies, while in the United Provinces there are three classed as central societies and 15 as urban societies. Of the latter, three deal with their own shareholders and with independent societies, while the remainder, formed to deal with shareholders and with affiliated societies, are gradually being replaced by groups of independent societies. They financed altogether 439 rural and 59 urban societies. Of the other societies, a large majority are rural, but the urban societies have a much larger average membership. The general rule of rural credit societies is to work with unlimited liability and without share capital; the majority of urban societies, on the other hand, have limited liability. The Indian Act does not permit rural societies to pay dividends. The principle of unlimited liability, when it is understood, has no terror for the ryot; he has been long accustomed to it in his family relationships, while the principle of limited liability is relatively unfamiliar. But the former system must naturally be accompanied by the power to exclude all in whom the majority have no confidence. Except in the Central Provinces, where all loans have been issued for productive purposes, loans are granted without restriction on their employment. In Bengal, Madras, and Eastern Bengal and Assam a considerable part of the loans was for repayment of old debts bearing exorbitant rates of interest, but an increasing number was for productive purposes, such as cultivation and purchase of cattle. There are some societies of clerks, while others have been formed among weavers and other

artisans. In Bombay special attention has been given to societies for weavers and leather-workers.

There is a considerable variety in the rates of interest charged in different provinces, but the rates are in nearly all cases considerably lower than those charged by local moneylenders. The rates usually charged are shown in the marginal table. In Madras the moneylenders are said to have reduced their rates considerably in some districts on the opening of societies, while in others the reduction has been gradual. In villages in Eastern Bengal and Assam the moneylenders' rates usually vary between 24 and 37½ per cent., but 150 per cent. is sometimes charged. In many cases the moneylenders have not unnaturally disliked the movement. In some cases they have given active help, and in the Punjab have even deposited money in the village banks. In Burma moneylenders boycott members of co-operative societies, one result being a check to gambling. At present the societies derive their resources from members' deposits, Government loans, loans from other co-operative societies, and loans from non-members.

| Province. | Rate per Cent. charged on Loans to Members. | Rate per Cent. paid on Members' Deposits. |
|---|---|---|
| Madras | 6¼ to 12½ | 5 to 7½ |
| Bombay | 9⅜ | 6¼ |
| Central Provinces and Berar. | 9⅜ to 12 | 7 |
| Bengal | 15⅝ to 18¾ | 8 |
| Eastern Bengal and Assam. | 9 to 12½ | 6¼ |
| Punjab | 9 to 12½ | 5 |
| United Provinces | 12½ | 6 to 7½ |
| Burma | 15 | 9 |

The table in the margin shows the main statistics of the societies for the year 1909–10 and for the preceding year. It will be seen that membership and capital both largely increased. The great advance which has been made becomes evident when it is remembered that in March 1905 there were altogether only 35 rural and 6 urban societies. The movement has almost everywhere passed out of the experimental stage; a large number of the societies are firmly established on a self-supporting basis, and they are winning more and more the appreciation and confidence of the people. Loans are well and punctually repaid. It is noteworthy that in spite of the large increase in working capital the amount lent by the State is but little larger than in the previous year.

| No. of Societies. | 1908–9. | 1909–10. |
|---|---|---|
| Central | 15 | 31 |
| Urban | 210 | 291 |
| Rural | 1,738 | 3,106 |
| | 1,963 | 3,428 |
| No. of Members | 180,338 | 224,397 |
| *Capital.* | £ | £ |
| Loans from private persons / „ other societies | 272,029 | 432,488 |
| Share capital | 91,407 | 143,309 |
| Deposits by members | 107,016 | 166,201 |
| Loans from Government | 45,700 | 48,029 |
| Reserve | 12,729 | 22,041 |
| Total | 528,881 | 812,068 |
| *Expenditure.* | £ | £ |
| Loans repaid to private persons | 91,098 | 102,671 |
| Loans issued to members | 384,793 | 506,574 |
| Purchase of raw material and stores | 35,257 | 40,707 |
| Profits | 21,321 | 30,763 |
| Total | 532,469 | 680,715 |

N.B.—Figures for Mysore have been excluded.

In Bengal the movement is essentially a rural one, and much success has been achieved with small and humble societies of the Raiffeisen type. Indifferent societies are being weeded out. Many new rural societies were formed in 1909–10, chiefly in old centres, and the policy has been continued of grouping these societies with the object of gradually combining them into unions for the purpose of mutual control and financial assistance. Four such unions have been formed. Local capital has greatly increased in Bengal; the deposits of members are much larger, and money is obtained with facility from outside sources. Urban societies are chiefly used by Government and mercantile clerks. Evidence of popular interest is rather lacking and the number of non-official workers is small. In Eastern Bengal and Assam progress was substantial in 1909–10, and there was an increase in public confidence in the co-operative system, as shown by the increasing readiness of the public to invest their money with the societies. The societies, however, have outgrown the power of supervision by the existing staff, and progress is retarded from want of a supervising agency. A new feature of the year was the formation of a co-operative union. In the United Provinces there was a steady growth of

working capital, the chief need of the movement. Small urban societies of artizans, tradespeople, and menial servants with unlimited liability rapidly increased. The number of independent rural societies nearly doubled, and the policy has been deliberately adopted of substituting such societies for those affiliated to the central banks and entirely dependent on them. This substitution of small, compact, and really co-operative societies for the larger and more unwieldy model has been a success, and the business of the banks has not suffered. The financial condition of the societies is good. In the Punjab the movement extends to 18 districts, though it is mainly confined to seven districts. The societies, though working well on the whole, still need careful supervision and frequent inspection. During 1909–10 the progress of the movement was greater than in any previous year, and the number of societies doubled. Of the societies 98 per cent. are rural. Deposits by non-members largely increased. In the Chenab Colony, societies have bought agricultural machinery and traded in wood and cattle. Bank committees in many places act as standing panchayats. Five more district banks were established. A union has been started on the Bengal model. In the Central Provinces co-operative credit made an important advance in 1909–10. In two districts it has become a power and has acquired a firm footing in several others. In Burma there was steady expansion, and deposits more than doubled. The average membership is small. The Luzzatti type of society, which enables members to deposit savings, is ousting societies of the Raiffeisen and Schulze types, which, however, still number five and 184 respectively, as against 63 Luzzatti societies. Interest in, and knowledge of, co-operation has increased. Local capital is being more freely invested by the Burmese, and the movement is now independent of Government financial aid. With progress in organisation, the societies can be left more to themselves, and weak and ineffective ones discouraged. The Central Union Bank at Pakokku has been reconstituted. Eight unions of societies have been formed, which inspect, control, and guarantee their members. They comprise 92 societies. In Madras the number of societies more than doubled, the increase being mainly in rural societies. Of the members 56 per cent. are wholly and 24 per cent. are partly agriculturists. The Madras Central Bank prospered and issued additional shares. The tendency for the older societies to convert voluntarily from a limited to an unlimited liability basis continued. In Bombay, where rural societies are relatively few, the movement is steadily progressing, and in nine months the total membership increased by 35 per cent. The average membership was also larger. The percentage of outside capital increased. Societies are becoming more highly organised. A scheme, undertaken by leading local capitalists, for starting a Bombay Central Bank with a Government guarantee of interest on debentures has been sanctioned.

In most provinces the question of financing the societies is in the way of being solved, but the best methods of providing audit, inspection, and control are not yet settled, though experience points to the organisation of societies into local unions as the best solution. Experience has also shown, among other things, the necessity for great care in selecting members; the need of obtaining sufficient capital to supply the wants of members; the necessity of considering current local rates of interest in fixing the rates at which members should borrow from the society; and the need of closer supervision of small societies and improved methods of financing them.

Several provincial conferences took place during the year, and the Fifth Annual Conference of Registrars of Co-operative Credit Societies was held in November 1910. Reports showed that there is an extraordinary diversity in the lines of development followed in different parts of India.

A Bill to amend the law relating to Co-operative Societies was introduced in the Legislative Council in March 1911 in conformity with suggestions made by the Fourth Conference of Registrars. The new measure applies not only to co-operative credit societies, but to all co-operative societies, including those for production and distribution. Societies are to be classified as societies with limited and with unlimited liability respectively, and not as rural and urban, though the principle is retained that agricultural credit societies must generally be with unlimited liability. Unlimited liability societies are to be allowed, with the Local Government's sanction, to distribute profits. The formation of co-operative credit societies of which the members shall be other co-operative credit societies is to be legalised. Numerous minor changes are proposed.

# CHAPTER VII.

## FORESTS.

*(For further details see Statistical Abstract of British India, Tables 59, 60, and 125.)*

*General.*—Systematic conservancy of the Indian forests is based on the Forest Act of 1878, which gave the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. Special forest laws have also been enacted for each province, and a staff of trained forest officers has been organised. Forest administration is based upon the principle that State forests should be administered for the public benefit; they are worked, therefore, with a view to combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and as retainers of moisture in the soil. The forests are classified as "reserved," "protected," or "unclassed." In the reserved areas the control of the Forest Department is more complete than in the protected or unclassed forests. In the latter, the area of which cannot be precisely stated, are included large tracts of uncultivated land, especially in Burma, much of which will probably become agricultural land. Among the most important measures of conservancy are the prevention, so far as possible, of the fires which are liable to devastate the forests, the plantation and reproduction of timber and firewood, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At present the reserved (including leased) forests cover an area of about 92,000 square miles; and there is scope for further reservation in Madras and Burma. Outside the reserves there are about 157,000 square miles of State forests, including 16,000 square miles of protected forests. Some part of this area will eventually be brought within the "reserve" area, and all of it is, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests dealt with in this chapter are, almost exclusively, State forests. The limited areas of private forest, except where they have been leased to the Government, are being gradually exhausted; and few private communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use without charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Offences against the forest laws consist chiefly of illicit grazing and unauthorised felling or removal of produce. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. The gross revenue derived from forests in 1909–10 was £1,735,400, including £463,000 and £1,165,200 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,006,700, leaving a net revenue of £728,700. Some of the Native States, such as Kashmir, Mysore, Travancore and Baroda, have also organised a systematic forest administration, from which they derive a considerable revenue. The following paragraphs treat of forest administration in each province.

*Bengal.*—At the end of 1909–10 the areas of reserved and protected forests were respectively 4,248 and 3,713 square miles, representing over 6 per cent. of the area of the province. Owing to the depleted state of the village forest reserves rules were gazetted declaring all forest and waste lands in the Sambalpur district to be protected forests, the area affected being about 342 square miles. Working plans have been, or are being, provided for 5,904 square miles. With regard to fire protection, the year was unfavourable, and 33,053 acres were burnt. The cultivation of rubber (*ficus*

*elastica*) and of cinchona is being extended in the Tista division. The yield of timber was about 4¾ million cubic feet, a decrease on that of 1908–9, while the out-turn of fuel, 30¼ million cubic feet, was also smaller. The number of bamboos taken from the forests was over 11 millions. Only a small part of the total out-turn is exploited by departmental agency. From a commercial standpoint the year's working was less satisfactory than that of 1908–9, the surplus revenue being £35,013 as against £41,363. The cyclone of 1909 in the Sunderbans division caused great havoc, damaging millions of trees. The number of recorded offences, 2,181, was below the average. There was an increase from 103 to 106 in the number of workmen killed by man-eating tigers in the Sunderbans forests. A committee, appointed on the initiative of the Secretary of State to inquire into the condition of the forests of Chota Nagpur, Orissa, and the Feudatory States, has issued its report and framed a draft Bill with the object of conserving private forests.

*United Provinces.*—The areas of reserved and protected forests at the end of 1909–10 were 3,947 and 9,099 square miles respectively, in addition to 156 square miles of leased forests and 42 square miles of unclassed forests. Much valuable work was done during the year in examining and demarcating the more important forests and ascertaining their capabilities. Natural reproduction was generally good, especially in the case of *sal*. Working plans have yet to be compiled for 95 square miles. Fire protection was very successful. The yield of the forests was 7¾ million cubic feet of timber, 11½ million cubic feet of fuel, and 12¾ million bamboos, besides minor produce. The removal of forest produce is almost entirely carried on by outside agency. The manufacture of catechu was carried on as usual. The resin and turpentine industry in the Naini Tal and Jaunsar divisions gave good results, partly due to a rise in prices. The financial results were better owing to a revival of the timber trade, and the surplus revenue for the year was £70,000. Breaches of the forest rules were considerably above the average. Plans are being formulated for restocking areas affected by the great drought.

*Punjab.*—The reserved forest area at the end of 1909–10 comprised 1,955 square miles, including 110 square miles under military or other control. The protected forests aggregated 5,223 square miles, while there are 1,332 square miles of unclassed forest and 369 square miles of leased forests. The area was reduced during the year, mainly by the exclusion of 244 square miles of village forests in the Rawalpindi division. For various reasons little progress was made with working plans, which are still required for 3,959 square miles. The year was less favourable as regards forest fires. The policy of exploiting the forests through non-departmental agency has been still further extended. The out-turn of timber was about 4¼ million cubic feet, a large increase upon 1908–9, while the fuel out-turn was nearly 23¾ million cubic feet. The surplus of the year amounted to £19,800. About 82 per cent. of the forest area was open to cattle for grazing. The difficulty of protecting forests from damage by excessive grazing has become greater as cattle and pastoral animals have largely increased and waste lands have been curtailed through irrigation. The continued increase in the number of forest offences is disquieting. This is mainly due to cases of illicit grazing. Schemes for the production of wood-pulp and resin are in preparation.

*North-West Frontier Province.*—At the end of 1909–10 the reserved forest area was 250 square miles, besides 121 square miles of civil protected forests. Working plans have now been framed for 236 square miles. There was an increase in the out-turn of produce, the quantities being 586,000 cubic feet of timber and 287,000 cubic feet of fuel. The net revenue was £3,358, or considerably less than in recent years. There was a marked increase in the number of forest offences. The protection from fire was not so good as in 1908–9.

*Burma.*—The reserved forest area in Burma was increased during 1909–10 by 2,110 square miles to 25,691 square miles; the unclassed forests, much of which will ultimately be brought under cultivation, covered 113,007 square miles, an increase of 2,139 square miles. Satisfactory progress was made in the settlement of tracts to be maintained as reserves. Endeavours are being made to check the evils arising from the practice of shifting cultivation. Working plans for 2,048 square miles were in preparation or awaiting sanction. The area of reserved forests not under working plans at the end of the year was 16,396 square miles. The majority of the teak-bearing forests are now being managed under working-plans or girdling schemes. The area in which fire protection was attempted covered 7,727 square miles, and the results were very successful. Rubber, teak, and other plantations were maintained, and further experiments were made with the cultivation of rubber, which is said to be

growing very successfully in the Bhamo division. The rubber plantation at Mergui was sold after the close of the year. There was a decrease in the number of trees girdled. The number of teak trees girdled was 112,600 and the quantity of teak extracted was 284,600 cubic tons, including 234,600 by purchase contractors, an increase of 14,500 cubic tons, due to a favourable floating season. Of other timbers, 302,300 cubic tons were extracted, besides 325,600 cubic tons of fuel. The area under teak worked by the Department is being strictly curtailed in favour of the system of extraction by firms under purchase contracts. The surplus revenue amounted to £364,000. There was a decrease in the number of forest offences.

*Central Provinces and Berar.*—The total area of forests at the end of 1909–10 was 21,436 square miles, including permanent reserves of 20,620 square miles and unclassed forests 816 square miles. The forest area shows a decrease of 485 square miles, due to the transfer to Madras of forests in the Cherla Range. The total length of forest boundaries is nearly 37,000 miles, of which 92 per cent. has been artificially marked. Special attention has been given to the making of roads which will facilitate the utilisation of forest resources. Further working plans were sanctioned or in progress; new plans are still required for 5,935 square miles. In future a revenue officer is to be deputed to consult with the working-plans officer with the view of securing due attention to agricultural interests. The fire season was very unfavourable. The area under fire protection was 11,795 square miles. The number of forest offences increased by 13 per cent. There was a large decline in the out-turn of forest produce. The amount of timber removed from the forests during the year, chiefly by private persons, was about 4½ million cubic feet, that of fuel about 17½ million cubic feet. The surplus revenue was £34,400, an increase of £7,400 on 1908–9. As usual, a large part (43 per cent.) of the revenue was yielded by grazing and fodder-grass, while 27 per cent. was derived from timber, and 30 per cent. from fuel and minor produce.

*Eastern Bengal and Assam.*—The forest area at the end of 1909–10 included 6,483 (an increase of 166) square miles of reserved and 4 miles of protected forests, or about 6½ per cent. of the total area of the province, and 22,752 square miles of unclassed forests. The unclassed forests consist largely of grass or treeless waste in Assam; they are all open to grazing, and part of their area is more or less regularly under cultivation. Progress was made in bringing the reserved forests under systematic management. Working plans are still required for 4,656 square miles. Special fire protective measures extended over 1,569 square miles, and fires did much less damage than in 1908–9. On the other hand, there was a large increase in the number of forest offences, which consist chiefly of unauthorised fellings. The Charduar and Kulsi plantations of rubber (*ficus elastica*) produced distinctly satisfactory results. Successful efforts are being made to introduce rubber cultivation in the Lushai Hills and elsewhere. The gross yield of the forests amounted to 5¾ million cubic feet of timber and 12¼ million cubic feet of fuel, besides 34 million bamboos and minor produce. The surplus revenue amounted to £35,888. It is found more profitable to sell standing timber to contractors than to exploit it by Government agency. Nine new forest villages were established during the year.

*Madras.*—The total area of forests on 30th June 1910 was 19,612 square miles, of which 18,769 square miles were classed as reserved forests. The settled and systematically protected forests cover nearly one-seventh of the area of the Presidency. Detailed working plans were sanctioned or in preparation for 847 square miles, bringing up the total area for which regular working plans have been prepared to 7,893 square miles. Protection from fire was satisfactorily undertaken over 9,254 square miles. There were 25,277 forest offences, of which 17,251 were compounded. Natural reproduction was, on the whole, good. The area of reserves open to cattle for grazing was about 88 per cent. of the total. The yield of the forests was about 3⅔ million cubic feet of timber and 21½ million cubic feet of fuel, besides 39 millions of bamboos and minor produce. The out-turn was larger than in 1908–9, but the surplus revenue, amounting to about £53,285, was smaller. Departmental depôts for supplying the people with fuel and bamboos worked satisfactorily.

*Bombay.*—The area of the reserved forests was 13,769 square miles at the end of 1909–10, while that of the protected forests was 1,348 square miles. The area for which working plans have been sanctioned is about 45 per cent. of the total area. Satisfactory progress was made with the cultivation of rubber in the South Thana division. Forest offences were about the same in number as last year. As regards

fire protection, there was wilful firing of forest areas in Sind, owing to the dearth of grass consequent on the low inundation. The yield of timber was 4½ million cubic feet, of fuel 39 million cubic feet, and of bamboos 8,700,000. The surplus revenue amounted to £104,760.

*Coorg.*—The area of reserved forests at the end of 1909–10 was 520 square miles. The season was very favourable as regards fire protection. Of the reserves, 65 per cent. were open to grazing. Sandal trees affected with "spike" disease were uprooted. The out-turn of the forests was 417,638 cubic feet of timber and fuel. The surplus revenue was £8,804.

*Andamans.*—The area of reserved forests in the Andamans is 161 square miles, while the area of unclassed State forests and waste lands is 1,791 square miles. Of the total area, 1,952 square miles, working plans for 317 square miles have been sanctioned. Attention was paid to the reproduction of padouk trees, both naturally and artificially. The padouk timber trade, owing to competition, received an impetus during the year. The out-turn of timber was 503,000 cubic feet (of which 222,000 cubic feet were exported), of fuel 1,103,000 cubic feet, and of bamboos 1,193,000. The surplus revenue was £7,682.

# CHAPTER VIII.

## MINERAL PRODUCTION AND MINING.

*(For further details see Statistical Abstract for British India, Table* 216; *"Quinquennial Review of the Mineral Production of India during the years* 1904 *to* 1908" *in Records of Geological Survey, Vol.* XXXIX., 1910; *and "The Mineral Production of India during* 1909" *in Vol.* XL., 1910.)

### Mineral Production.

*General.*—During recent years much has been done to develop the mineral resources of India. The minerals that have been chiefly worked are those which can be consumed by direct process on the spot, or which, owing to their abundance and cheapness, are suitable for export in the raw state. The output of minerals in India (including Native States) has shown a marked increase in the last 11 years, the estimated value of that for the quinquennium 1898–1903 being £4,330,000, for the quinquennium 1904–1908 £6,716,000, and for the year 1909 £7,499,000. In 1909 there was a decrease of 4·6 per cent. as compared with the total, £7,862,000, of 1908, due almost wholly to a smaller production of coal. By far the most important minerals are coal and gold, the production of which in 1909 was valued at £2,780,000 and £2,205,000 respectively, followed by petroleum, £910,000, salt, £454,000, and manganese ore, £508,000. These estimates of values relate to all production for which returns are available, but as they represent in some cases spot values, in others values at the sea-ports, they cannot serve for comparison with the production of other countries, but only for the comparison of one year with another in India itself.

*Coal.*—Coal is the most valuable mineral product worked, and is by far the largest supporter of labour. The production, which had risen without a break since 1882 to $12\frac{3}{4}$ million tons in 1908, declined in 1909 to 11,870,000 tons. The marginal table shows the average output for the quinquennium 1904 to 1908 and for the year 1909, and also brings out the territorial distribution of the mines. The areas not enumerated include the Punjab, Baluchistan, and Bikanir, in which production has hitherto been fluctuating and not very progressive. The decreased production in 1909 was mainly in the Bengal fields, and was due to bad trade conditions generally, and to a reaction after two years of speculation in Bengal coal mines.

| Province or State. | Average, 5 years, 1904 to 1908. | 1909. |
|---|---|---|
| | 000 Tons. | 000 Tons. |
| Bengal | 8,894 | 10,661 |
| Hyderabad | 440 | 443 |
| Eastern Bengal and Assam | 280 | 306 |
| Central Provinces | 145 | 238 |
| Central India | 169 | 121 |
| Other provinces or states | 139 | 101 |
| Total | 10,067 | 11,870 |

Bengal produces about 90 per cent. of the coal won in India, the Jherria coal-field (opened in 1893) providing in 1909 5,833,000 tons, nearly half the total output, the Raniganj 4,035,000 tons, and the Giridh 705,000 tons. In the Central Provinces the output of the Pench Valley Collieries, opened in 1905, fell to 92,000 tons.

The exports of Indian coal, 564,000 tons, were smaller than in 1908. Ceylon and the Straits Settlements are the two principal markets. About 95 per cent. of the Indian production was consumed at home, 31 per cent. of the output (3,689,000 tons) being absorbed by the railways, whose coal consumption is now Indian to the extent of nearly 98 per cent. It is roughly estimated that 1,500,000 tons were used for bunker coal for ocean-going and inland steamers, 1,100,000 tons for colliery consumption and wastage, and 2,100,000 tons for jute and cotton mills and iron and brass foundries.

Prices in 1908 were the highest so far recorded. The average estimated wholesale price of coal at the pit's mouth, which had been as low as 3*s.* 4*d.* per ton in 1905 and rose to 5*s.* 3*d.* in 1908, fell to 4*s.* 8*d.* in 1909. The coal now being worked is near the surface, and labour is cheap; as a consequence Indian coal has a lower value at the pit's mouth than that of any other country. The amount of capital invested in coal mines cannot be given, but most of the Bengal output comes from mines owned by joint-stock companies.

The average number of persons daily employed in coal mines during 1909 fell to 119,500, two-thirds of whom were men. As the result of improved mining methods, the output per head has grown from 89 tons in 1904 to 99 tons in 1909,

but even this is a somewhat low degree of efficiency if tested by European standards. The labourers include chiefly landless day labourers. In some old established centres a mining caste is being evolved, and allotments of land are made to miners.

*Gold.*—The production of gold amounted to 574,816 ounces, valued at £2,204,866, in 1909, compared with 567,630 ounces, valued at £2,177,247, in 1908. By far the greatest part of the gold (545,309 ounces) came from the Mysore gold-fields. The Hutti mine in Hyderabad produced 15,241 ounces in 1909.

*Petroleum.*—Since the introduction of European drills the production of petroleum has rapidly risen. Increased activity in the Twingon Reserves of the Yenangyaung oil-field, where rich oil-sands were struck at greater depths, led to a further large rise in the output during 1909. The total production of crude petroleum rose to the record figure of 234 million gallons, as compared with 177 million gallons in 1908, and an average of 146½ million gallons during the quinquennium 1903 to 1907. About 3¼ million gallons of oil were extracted in Eastern Bengal and Assam; and the rest of the product, except a trifling amount from the Punjab, came from Burma, the principal oil-fields being at Yenangyaung, the oldest field, in Magwe district, and at Singu, in Myingyan district. The former of these yielded 187 and the latter 37 million gallons. The increase during 1909 in the Yenangyaung field was 63 million gallons, all other fields showing a reduction. Oil refineries have been erected, and the various constituents of the crude oil are put on the market in the form of kerosene, petrol, lubricating oil, batching oil, fuel oil, candles, and paraffin wax. The production and export of paraffin wax have steadily and largely increased. There was a decline from 80 to 70 million gallons in the imports of kerosene into India.

*Manganese.*—Manganese ore is now chiefly obtained from extensive deposits in the Central Provinces, Madras, Bengal, and Mysore. Owing to slacker demand and to foreign competition, production again declined in 1909, the quantity being only 642,675 tons as against 674,315 tons in 1908, and the record figure of 899,055 tons in 1907. The decline, as compared with 1908, was mainly in the Central Provinces (50,000 tons) and Mysore, Bengal and Madras showing an increase. The ores worked are for the most part exceedingly rich, as the high cost of transport renders the working of the lower-grade ores unprofitable, and India is now probably the chief producer of high-grade ore. There is no smelting plant in the chief producing centres, and the ore is shipped in bulk exactly as mined, to be smelted in the United Kingdom, Germany, or the United States. The exports in 1909 were 467,300 tons.

| Province or State. | Average, 1904 to 1908. | 1909. |
|---|---|---|
| | Tons. | Tons. |
| Central Provinces | 316,905 | 381,285 |
| Madras - - | 102,769 | 138,454 |
| Mysore - - | 45,649 | 39,895 |
| Central India - | 28,189 | 10,324 |
| Bombay - - | 10,842 | 17,657 |
| Bengal - - | 4,789 | 55,060 |
| Total - | 509,143 | 642,675 |

*Salt.*—The production of salt in India (excluding Aden) in 1909 was 1,189,063 tons, as compared with 1,279,937 tons in 1908. About 62 per cent. is evaporated from sea-water, chiefly in Bombay and Madras. About 27 per cent. is derived from sub-soil water and lakes, and only 11 per cent. is obtained by mining and quarrying. Most of the rock-salt, amounting to 146,700 tons, came from the Punjab Salt Range.

*Saltpetre.*—The value of the saltpetre industry is gauged most uniformly by the figures for exports, which increased to 404,946 cwt. in 1909, valued at £296,838, a slight advance on 1908. Behar is the principal seat of this industry.

*Mica.*—India has for many years been the leading producer of mica, turning out more than half the world's supply. The returns of the mica output showed a large decline in 1909, the total being 32,903 cwt., as against an average of 41,219 cwt. for the five years to 1908. Small mica, which formerly was thrown away, is now saved, the result being that a greater output is produced by a smaller number of workers. The mines are situated in Bengal, Madras, and Rajputana.

*Rubies.*—The ruby industry in Burma has been productive during recent years. In 1909 the reported production of rubies, including small quantities of sapphire and spinel, amounted to 258,304 carats, valued at £58,649, in 1909, compared with 281,014 carats, valued at £83,505, in 1908. This output was wholly derived from the Mogok mines of the Burma Ruby Mines Company. Rubies are also obtained by native miners working under licence from the Company.

*Other Minerals.*—Among minerals not above referred to is jadeite, which was exported in 1908–9 to the value of £84,450 from the Myitkyina district of Burma. The output of iron ore, though larger than in 1908, was only 83,456 tons. In 1907 the Tata Iron and Steel Company was formed with a large capital to exploit iron ore lands in Orissa and the Central Provinces, and large developments in production are anticipated. There is a small output of tin, graphite, and chromite.

### Mining Concessions.

Since Rules were issued in 1899 to govern the grant of exploring and prospecting licences and of mining leases, the number of concessions in lands in which the mineral rights have been retained by Government (exclusive of Native States) has rapidly increased, mainly owing to the enhanced interest in manganese in Bombay and the Central Provinces. The concessions granted in Government lands amounted in 1899 to 60 only, but in 1908 the number had risen to 816. In 1909 the total number of concessions fell to 693, though mining leases increased from 71 to 156. Prospecting licences numbered 394, and exploring licences 143. In some areas, including nearly all the coal-bearing land in Bengal, mineral rights have been conceded permanently with the surface ownership.

By the Rules exploring licences can be obtained for one year, but they give no exclusive or preferential rights, and there is no prohibition against free exploration in unoccupied and unreserved land. Prospecting licences are granted over restricted areas for a period of one year, renewable with the consent of the Local Government for a second and third term. Such licences carry an indefeasible claim for a subsequent mining lease for any mineral other than precious stones over the same or a restricted area. The Rules are undergoing revision.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

### Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India, and regulates all mineral workings which are either true mines worked underground, or open pits, quarries, or excavations more than 20 feet deep and any part of which extends beneath the superjacent ground.

The number of mines of all kinds coming under the Act in 1909 was 785, of which 511 were coal mines, including 465 in Bengal, 172 mica mines, including 101 in Bengal, and 37 manganese mines. There was a considerable reduction in the number of manganese and mica mines worked. The mines gave employment to an average daily number of 140,710 persons (a decrease of 14 per cent. in the year), of whom 88,885 were men, 47,487 women, and 4,338 children under twelve years old; 90,495 persons worked underground. The labour material is very unformed, possesses little skill, and requires constant supervision.

There were 126 fatal accidents, causing 152 deaths, during the year 1909, a decrease of 42 in the deaths as compared with 1908. Of the deaths from accidents, 119 occurred in coal mines. Greater discipline would substantially lessen this loss of life. Accidents in coal mining would probably be more numerous (1·08 per 1,000 workers) but for the fact that the workings are generally free from gas, very shallow, and not elaborate. Dangers must increase as the works become deeper. One prosecution was instituted in 1909, and the defendant was convicted.

### Mining Education, &c.

Progress in mining education is being maintained, and the need for it is still urgent. The number of students taking the Mining Course at Sibpur College during the session 1909–10 was 18, of whom six gained diplomas. The demand for passed students exceeds the supply. The new practical mining laboratory, designed specially with a view to coal mining, is now in working order. Lectures were delivered at four centres in the Bengal coal-fields in 1909–10, and 230 students were registered. These peripatetic courses, designed to improve mining knowledge and enable mine officials to qualify for certificates of competency as mine managers, have been held for five years, and have been very successful. The only Mining Board at work during 1909 under the Mines Act of 1901 was that for Lower Bengal, which is by far the most important mining centre in India. The Mining and Geological Institute of India, which was inaugurated at the end of 1905, made good progress during the year.

# CHAPTER IX.

## MANUFACTURES.

INDUSTRIAL DEVELOPMENT.
LARGE INDUSTRIES.
FACTORY LEGISLATION.
FACTORY INSPECTION.
PATENTS AND DESIGNS.

*(For further details see Statistical Abstract for British India, Tables 212 to 215.)*

### INDUSTRIAL DEVELOPMENT.

In recent years there has been much discussion in India regarding the advantages of encouraging manufactures for the purpose of securing greater diversity of occupation in a country that so largely depends on agriculture. The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. There are standing orders that stores required by Government shall, as far as practicable, be purchased in India. In March 1909 it was ordered that purchasing officers shall in all cases give preference to articles manufactured in India from Indian materials (or from imported materials), provided that the quality is sufficiently good and the price not unfavourable. Detailed information regarding the kinds of articles required has recently been issued. From time to time monographs are published dealing with the position in each province of some leading industry. Thus monographs have recently appeared on paper-making, the manufacture of wire and tinsel, the preservation and curing of fish in Madras, the salt-boiling industry in Burma, and the hand-loom industry in Bombay. In some provinces the local governments have instituted special inquiries to ascertain the prevailing industrial conditions, with a view to promoting those industries that appear, when properly organised, to give promise of success. A "Review of the Industrial Position and Prospects in Bengal in 1908" has been prepared by Mr. J. G. Cuming, I.C.S., a "Survey of the Industries and Resources of Eastern Bengal and Assam" by Mr. G. N. Gupta, I.C.S., and "Notes on the Industries of the United Provinces" by Mr. A. C. Chatterjee, I.C.S. Industrial conferences and exhibitions have been held, and a knowledge of Indian manufactures has become more widely diffused. The annual Indian Industrial Conference, held in connection with the National Congress, took place at Lahore in December 1909. An Industrial and Agricultural Exhibition was also held at Lahore in the same month with the support of the Punjab Government. Endeavours are being made in all provinces to improve the important and widespread domestic cotton industry by introducing better types of hand-looms and superior methods of manufacture, in order that their products may compete more successfully with goods manufactured by power looms in India or imported from abroad. In Bombay the Government employed an expert to undertake a survey of the leather industry. He recommended inquiries regarding tanning materials and the instruction of children in leather-working. He also suggested that co-operative societies should be organised to help leather-workers. In Bengal improved methods are taught at the Serampur Weaving School and at outlying centres. In the United Provinces schools have been established at weaving centres under Government auspices to popularise the use of improved looms and simple warping processes. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations.

### LARGE INDUSTRIES.

In this chapter attention must be mainly confined to the larger industries, concerning which alone statistical information is available. By far the most important of these are the cotton and jute manufacturing industries, which have made rapid progress in recent years, as the following figures show:—

| Year. | Cotton Mills.* | | | | Jute Mills. | | | |
|---|---|---|---|---|---|---|---|---|
| | No. | Paid-up Capital. | Looms. | Spindles. | No. | Paid-up Capital. | Looms. | Spindles. |
| | | £ | | | | £ | | |
| 1883–4 - | 71 | 5,428,000 | 15,412 | 1,842,184 | 23 | 2,124,000 | 6,139 | 112,650 |
| 1888–9 - | 98 | 6,166,000 | 19,288 | 2,504,666 | 25 | 2,599,000 | 7,419 | 151,207 |
| 1893–4 - | 125 | 7,504,000 | 26,876 | 3,338,229 | 27 | 2,701,000 | 9,180 | 191,228 |
| 1898–9 - | 158 | 10,070,000 | 34,775 | 4,261,520 | 33 | 3,821,000 | 13,421 | 279,482 |
| 1903–4 - | 187 | 10,428,000 | 41,997 | 4,900,106 | 38 | 4,954,000 | 18,400 | 376,718 |
| 1906–7 - | 197 | 11,513,000 | 55,291 | 5,230,020 | 44 | 6,330,000 | 25,284 | 520,504 |
| 1907–8 - | 207 | 12,031,000 | 62,251 | 5,437,198 | 54 | 7,019,000 | 27,244 | 562,274 |
| 1908–9 - | 211 | 12,754,000 | 69,283 | 5,602,134 | 56 | 7,413,000 | 29,525 | 607,458 |
| 1909–10 - | 215 | 12,648,000 | 74,585 | 5,773,824 | 60 | 7,674,000 | 31,418 | 645,862 |

* The figures in this table now relate to British India only (Native States and Pondicherry being excluded).

*Cotton Mills.*—The 215 cotton mills at work in British India in 1909–10 included 95 exclusively spinning, 16 exclusively weaving, and 104 both spinning and weaving mills. The majority of the mills, viz., 162, were in the Bombay Presidency, and they contained 74 per cent. of the spindles and 84 per cent. of the looms. Bombay City contained 83 mills and Ahmedabad 53. The industry is to a large extent in the hands of Indians. In spite of some unfavourable years, the industry, as the above table shows, has continued steadily to develop.

The outturn of yarn in recent years in British India is shown in the margin. The mills of the Bombay Presidency produced nearly 74 per cent. of the total, Bengal 6 per cent., Madras 7 per cent., the United Provinces 7 per cent., and the Central Provinces and Berar 5 per cent. It will be observed that yarns of counts above No. 25, constitute nearly 9 per cent. of the total production. They are chiefly spun in the Bombay mills. Imports of yarn amount to only about 6 per cent. of the Indian production, but a very small proportion is of counts under 25. The phenomenal activity of the cotton industry in 1905–6 was followed by a decline in prosperity during 1906–7, which became accentuated in 1907–8. In 1908–9 the Indian market was depressed owing to shortage of crops, high prices of food, and the fewness of marriages, but the situation was relieved by a timely demand from China, which is the principal market for Indian yarn. In 1909–10 trade was at first brisk owing to an active China demand and to numerous marriages, but an unprecedented rise in the price of raw material left manufacturers but little profit. About 36 per cent. of the yarn produced was exported.

| Year. | Counts Nos. 1 to 25. | Above No. 25. | Total. |
|---|---|---|---|
| Average: | Million Lbs. | Million Lbs. | Million Lbs. |
| 1896–7 to 1900–1 - | 423·9 | 20·1 | 444·0 |
| 1901–2 to 1905–6 - | 537·4 | 39·9 | 577·3 |
| Year 1906–7 - | 581·4 | 49·2 | 630·6 |
| „ 1907–8 - | 556·6 | 57·2 | 613·8 |
| „ 1908–9 - | 572·0 | 57·9 | 629·9 |
| „ 1909–10 - | 542·9 | 50·5 | 593·2 |

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, which has greatly extended. The production in 1909–10 furnished a record. But this movement appears to have been overdone, though goods of finer quality are being produced. The production of woven goods in recent years in British India only is given in the margin. Weaving is concentrated to an even greater degree than spinning in the Bombay mills, which in 1909–10 produced about 84 per cent. of the total output of cloth; the United Provinces and Central Provinces each contributed about 5 per cent.; and Madras about 4 per cent. These fabrics are mainly grey and bleached piece-goods. As the marginal table shows, however, there is a decided tendency to increase the output of other and finer fabrics, this tendency being specially marked in Madras. About 10 per cent. of the cotton piece-goods produced was exported.

| Year. | Grey and Bleached. | Other kinds. | Total. |
|---|---|---|---|
| Average: | Million Lbs. | Million Lbs. | Million Lbs. |
| 1896–7 to 1900–1 - | 80·6 | 11·3 | 91·9 |
| 1901–2 to 1905–6 - | 109·9 | 25·0 | 134·9 |
| Year 1906–7 - | 129·6 | 29·4 | 159·0 |
| „ 1907–8 - | 147·6 | 33·7 | 181·3 |
| „ 1908–9 - | 147·2 | 37·0 | 184·2 |
| „ 1909–10 - | 167·2 | 48·2 | 215·4 |

*Jute Mills.*—While the cotton mills are largely owned by Indians and are mainly situated in Western India, jute mills are nearly all concentrated in Bengal in the vicinity of Calcutta, and are mostly in the hands of English firms. As will be seen from the statistical table above, the jute industry is of smaller dimensions than the cotton industry, but it has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having nearly doubled in the last decade. The number of jute mills in 1909–10 was 60, containing 31,418 looms and 645,862 spindles, and employing a daily average of 204,104 persons. The paid-up capital employed by 56 of these mills was £9,726,000, including debentures; of this total about £3,280,000 was sterling capital. In 1909–10 the number of spindles increased by 6 per cent., and the number of looms by 6 per cent. Hessian looms are now more numerous than sacking looms. In 1909–10 there was depression in the industry, and for some months the mills worked short-time.

*Woollen Mills.*—There were four woollen mills at work at the end of 1909, containing 763 looms and 28,853 spindles, and producing goods valued at about £267,000 for the year. The industry shows little sign of expansion. The fabrics consist chiefly of cloth for the army and the police. The produce of Indian mills represents only a small share of the total trade in woollen goods, for, although the demand for woollen goods in India is not very large, certain varieties can be produced much more easily and cheaply by European mills. There are many small hand-loom factories for weaving carpets and rugs, whose production is in the aggregate extensive.

*Paper Mills.*—There were eight paper mills at work at the end of 1909, producing during the year about 55 million lbs. of paper, valued at £517,000. Most of the official foolscap, blotting paper, notepaper, and envelopes is now obtained locally; but the development of paper-making in India has been checked by the competition of cheap wood-pulp paper from Europe, imports of which have increased much faster than the home production.

*Breweries.*—At the end of 1909 there were 24 breweries, which produced during the year 4,824,000 gallons of beer. The largest brewery is at Murree in the Punjab Himalayas, and its output was 758,000 gallons. About 37 per cent. of the whole Indian production was brewed in the Punjab. The quantity of beer imported in 1909 was 4,287,000 gallons.

*General Remarks.*—The total number of factories worked by mechanical (including electrical) power, owned by companies or private persons in British India and in Native States, was 2,418 in 1909. In these the average daily number of operatives was 776,662. A classified list of the more important is given in the margin. There were also 538 factories not worked by mechanical power, employing 79,954 persons. Of the 1,074 factories for the ginning, cleaning and pressing of cotton there were 376 in the Central Provinces and Berar, 358 in Bombay, 134 in the Punjab, and 132 in the United Provinces. In Bombay about 190,000 operatives are employed in different branches of the cotton industry. In Madras and the Central Provinces and Berar, as in Bombay, cotton weaving and spinning are the principal industries. In Bengal and Eastern Bengal and Assam there is an increasing number of jute presses. Silk filatures and indigo factories are found chiefly in Bengal. Flour mills are most numerous in the Punjab and sugar factories in Bengal. Rice mills and saw mills are most numerous in Burma, rice and teak being the two principal products of the province. They are mainly in European hands and are the only large industries in Burma organised and worked by western methods. Printing presses are numerous in Bombay, Bengal, and Madras. Iron and brass foundries (including engineering workshops) number 28 in Bengal and 20 in Bombay. Only one company manufactures iron on European lines in Bengal, and its production is confined to pig-iron. Another firm is erecting blast furnaces and steel rolling mills in the Singhbhum district. There were 117 factories belonging to the State and to local bodies and employing 65,505 persons. Among these were 19 printing presses, 23 railway workshops, 11 canal foundries and engineering workshops, and 18 military arsenals and factories.

| — | No. of Works. | No. of Operatives. |
|---|---|---|
| Cotton presses | 1,074 | 89,217 |
| Cotton mills | 225 | 218,321 |
| Jute presses | 146 | 28,666 |
| Jute mills | 59 | 203,286 |
| Silk filatures | 10 | 1,656 |
| Rice mills | 207 | 18,726 |
| Flour mills | 34 | 2,942 |
| Sugar factories | 22 | 4,559 |
| Saw mills | 101 | 8,835 |
| Iron and brass foundries | 82 | 22,932 |
| Indigo factories | 51 | 18,787 |
| Tile factories | 25 | 3,542 |
| Oil mills | 21 | 1,907 |
| Printing presses | 68 | 13,383 |
| Dockyards | 15 | 11,971 |
| Railway workshops, &c. | 58 | 71,172 |

## Factory Legislation.

The law at present in force respecting factories in India is Act XV. of 1881, as amended by Act XI. of 1891. The changes introduced by the latter were, briefly: (1) The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act; (2) the minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years; (3) the maximum hours for child labour in any one day were reduced from nine hours to seven hours, and night-work was forbidden; (4) the hours of actual labour for women workers, which were unrestricted under the Act of 1881, were limited to 11 hours a day, with intervals amounting to 1½ hours; (5) a rest period during work was prescribed for all labourers.

Owing to complaints regarding the long hours worked in many mills, the Government of India appointed a small Committee, with Commander Sir H. P. Freer-Smith, R.N., late Superintending Inspector for Dangerous Trades in England, as chairman, to conduct a preliminary inquiry into the conditions of labour in textile factories. The Committee recommended that the working hours of adult males should be limited to 12 hours a day; that before children or adults are allowed to work in factories certificates of age and physical fitness should be required; that night-work of women should be prohibited; and that Medical Inspectors should be appointed. The Committee's report was presented to Parliament in 1907 (Cd. 3617).

The conclusions of this Committee formed the basis of an investigation by a representative Commission, whose report was presented to Parliament in 1908 (Cd. 4292). This report disclosed the existence of abuses, particularly in connection with the employment of children, and the excessive hours worked by operatives generally in textile factories. The majority of the Commission deprecated a statutory limitation of the working hours of male adults. But they recommended the formation of a class of "young persons," between 14 and 17 years of age, whose hours should be limited to 12, and considered that this would indirectly secure a 12 hours' day for male adults. They also recommended that the hours of work for children should be reduced from 7 to 6 hours and that the hours for women should be assimilated to those for "young persons," night-work being prohibited for both classes. They recommended that children should be certified as to age and physical fitness.

The recommendations of the Committee and of the Commission having been considered by the Government of India and the Local Governments, a bill was introduced in July 1909 to amend and consolidate the law relating to factories. The measure, which was passed in March 1911 (Act No. XII.), provides, subject to certain exceptions, that in textile factories: (1) No person shall be actually employed for more than 12 hours, no woman for more than 11 hours, and no child for more than 6 hours in any one day; (2) no person shall be employed before 5.30 in the morning or after 7 in the evening; (3) the period for which mechanical or electrical power is used shall not in any one day exceed 12 hours. In other than textile factories the working hours of children remain at 7. Further provision is made for securing the health and safety of the operatives and for making inspection more effective. The new Act will come into force on 1st July 1912.

## Factory Inspection.

The statistics of the factories inspected during 1909 are as follows:—

| Province. | Number of Factories working, and liable to be inspected. | Average Number of Hands employed daily. | | | | Number of Factories. | | | Number of Persons convicted of breach of Act. | Number of Accidents reported. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men. | Women. | Children. | Total. | With Sunday Holiday. | With other Weekly Holiday. | Exempted or worked otherwise. | | Fatal. | Serious. | Minor. | Total. |
| Bengal | 252 | 239,994 | 40,034 | 29,652 | 309,680 | 201 | 3 | 45 | 4 | 52 | 386 | 560 | 998 |
| Eastern Bengal and Assam | 137 | 21,929 | 1,207 | 609 | 23,745 | 50 | 4 | 78 | — | 2 | 3 | 21 | 26 |
| United Provinces | 173 | 42,655 | 5,619 | 2,343 | 50,617 | 139 | 30 | 4 | 9 | 6 | 48 | 82 | 136 |
| Punjab | 259 | 23,643 | 3,885 | 1,151 | 28,679 | 140 | 68 | 9 | 3 | 9 | 32 | 250 | 291 |
| North West Frontier Province | 3 | 87 | 66 | — | 153 | 2 | 1 | — | — | — | — | — | — |
| Burma | 267 | 42,511 | 894 | 593 | 43,998 | 221 | 35 | 11 | 9 | 13 | 125 | 224 | 362 |
| Central Provinces and Berar | 386 | 24,358 | 14,346 | 1,660 | 40,364 | 154 | 185 | 1 | 6 | 4 | 68 | 100 | 172 |
| Madras | 180 | 40,254 | 5,259 | 4,801 | 50,314 | 140 | 21 | 12 | 6 | 5 | 29 | 330 | 364 |
| Bombay | 540 | 173,000 | 42,898 | 11,461 | 227,359 | 358 | 159 | 3 | 21 | 30 | 178 | 1,395 | 1,603 |
| Ajmere-Merwara | 7 | 10,584 | 247 | 170 | 11,001 | 5 | 2 | — | — | 2 | 28 | 54 | 84 |
| Total, 1909 | 2,204 | 619,015 | 114,455 | 52,440 | 785,910 | 1,410 | 508 | 163 | 58 | 123 | 897 | 3,016 | 4,036 |
| Total, 1908 | 1,981 | 606,296 | 107,709 | 52,145 | 766,150 | 1,348 | 447 | 135 | 60 | 128 | 891 | 2,680 | 3,699 |

In 1909 the number of factories increased by 33 in Bengal, 31 in Eastern Bengal and Assam, 28 in Madras, and 24 in the United Provinces. The law was generally well observed as regards sanitation and water supply and fencing of machinery. Accidents are largely due to the carelessness of operatives. In the Punjab and Eastern Bengal and Assam, however, constant attention had to be paid to the condition of the latrine accommodation in some of the factories. The inspectors are unable to report satisfactory progress in Bombay to secure better ventilation in factories. In the Punjab it is suspected that breaches of the weekly holiday and midday stoppage rules occur. The latter specially affects women and children. In the United Provinces, too, women and children were found to be illegally employed and the Sunday holiday rule violated in cotton mills in Cawnpore. There were five convictions in Rangoon for not reporting accidents. In the Bengal jute mills there were general efforts to improve ventilation and to provide well-built houses for operatives, and septic tanks were installed in many of the mills. There were six convictions in Berar for illegally employing children. Out of 172 accidents in the Central Provinces 62 occurred in the Gun Carriage Factory at Jubbulpore, mainly ascribed to carelessness. The question of strengthening the inspection staff throughout India is under consideration.

## Patents and Designs.

The laws for granting exclusive privileges to inventors and for protecting patents and designs were amended and consolidated by the passing of the Inventions and Designs Act (V. of 1888).

The total number of applications for leave to file a specification under the Act in 1909 was 695, or 144 more than in 1908, and 503 were filed. Of these, 43 were refused or abandoned, and 146 were undecided at the end of the year. Only 74 of the applications were made by natives of India, 164 were made by Europeans and other residents in India, while 457 came from outside India, of which 253 were from the United Kingdom. The range of inventions for which protection was sought was, as usual, very wide, and, as in previous years, those relating to railways and textile industries predominated. Exclusive privileges were kept alive by payment of prescribed fees in 678 cases, while 449 ceased. Applications for the registration of designs numbered 51, of which 37 were allowed.

In view of the growing volume of patent work a new Patent and Designs Act, assimilating the Indian law more closely to that of the United Kingdom, was passed in March 1911. It provides a simpler, more direct, and more effective procedure in regard to the grant of patents and to their subsequent existence and operation. It encourages the inventor while giving better protection to him and to the public.

# CHAPTER X.

## TRADE.

*(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks: Tables of the Trade of British India, Review of the Trade of India, and Statistical Abstract for British India, Tables* 136 *to* 176.)

### Foreign Seaborne Trade.

This section deals only with the trade of British Indian ports, and excludes the trade of certain native States on the west coast, the trade of French and Portuguese possessions, and precious stones and pearls re-exported by post.

The foreign seaborne trade of India has greatly increased during the last 30 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). It will be observed that the percentage growth has been greater in imports, though the absolute increase has been larger in exports.

| Year. | Imports. | Exports of Indian Merchandise. |
|---|---|---|
| Average— | 000£ | 000£ |
| 1880–1 to 1884–5 | 33,754 | 52,964 |
| 1885–6 „ 1889–90 | 40,798 | 59,168 |
| 1890–1 „ 1894–5 | 45,647 | 67,623 |
| 1895–6 „ 1899–1900 | 46,956 | 69,100 |
| 1900–1 „ 1904–5 | 55,745 | 87,336 |
| 1905–6 „ 1909–10 | 77,281 | 111,874 |

The foreign seaborne trade of British India during the five years to 31st March 1910 was as follows :—

| | 1905–6. | 1906–7. | 1907–8. | 1908–9. | 1909–10. |
|---|---|---|---|---|---|
| Imports : | £ | £ | £ | £ | £ |
| Private Merchandise | 68,722,713 | 72,205,055 | 86,596,729 | 80,843,818 | 78,038,365 |
| Government Stores | 6,019,781 | 5,956,410 | 4,428,635 | 5,008,301 | 3,727,225 |
| Total Merchandise | 74,742,494 | 78,161,465 | 91,025,364 | 85,852,119 | 81,765,590 |
| Treasure, Private | 13,947,526 | 18,133,990 | 21,880,286 | 15,087,902 | 24,950,716 |
| „ Government | 7,153,150 | 11,585,884 | 6,309,379 | 74,876 | 64,933 |
| Total Treasure | 21,100,676 | 29,719,874 | 28,189,665 | 15,162,778 | 25,015,649 |
| Total Imports | 95,843,170 | 107,881,339 | 119,215,029 | 101,014,897 | 106,781,239 |
| Exports : | | | | | |
| Private Merchandise : | | | | | |
| Indian Produce and Manufactures | 105,459,482 | 115,625,135 | 115,727,127 | 99,904,843 | 122,891,479 |
| Foreign ditto | 2,352,540 | 2,322,693 | 2,511,557 | 2,113,820 | 2,259,090 |
| Government Stores : Indian | 78,392 | 71,940 | 84,921 | 76,800 | 55,428 |
| Total Merchandise | 107,890,414 | 118,019,768 | 118,323,605 | 102,095,463 | 125,205,997 |
| Treasure, Private | 4,299,838 | 3,808,672 | 3,630,819 | 3,971,116 | 4,262,220 |
| „ Government | 6,013,499 | 3,497 | 1,514 | 242,382 | 3,807 |
| Total Treasure | 10,313,337 | 3,812,169 | 3,632,333 | 4,213,498 | 4,266,027 |
| Total Exports | 118,203,751 | 121,831,937 | 121,955,938 | 106,308,961 | 129,472,024 |
| Total Seaborne Trade | 214,046,921 | 229,713,276 | 241,170,967 | 207,323,858 | 236,253,263 |
| Net Exports of Merchandise | 33,147,920 | 39,858,303 | 27,298,241 | 16,243,344 | 43,440,407 |
| Net Imports of Treasure | 10,787,339 | 25,907,705 | 24,557,332 | 10,949,280 | 20,749,622 |
| Net excess of Exports (balance of trade) | 22,360,581 | 13,950,598 | 2,740,909 | 5,294,064 | 22,690,785 |

After a set-back due to poor harvests in India and world-wide bad trade during 1908–9, there was a marked recovery, affecting mainly exports, in 1909–10, as the result of abundant crops, which realised high prices. The import trade did not revive till the latter part of the year. Imports of treasure were considerable.

*Principal Imports and Exports.*—The following table shows the values of the chief articles of merchandise imported and exported during the last three years (in thousands of pounds):—

| Principal Imports. | | | | Principal Exports (Indian Merchandise). | | | |
|---|---|---|---|---|---|---|---|
| Articles. | 1907–8. | 1908–9. | 1909–10. | Articles. | 1907–8. | 1908–9. | 1909–10. |
| | 000£ | 000£ | 000£ | | 000£ | 000£ | 000£ |
| Cotton manufactures - | 29,566 | 22,911 | 24,034 | Cotton, raw - - | 17,135 | 13,179 | 20,851 |
| „ yarn - - | 2,462 | 2,433 | 2,213 | Seeds - - | 11,210 | 7,785 | 12,484 |
| Metals - - - | 8,794 | 8,669 | 8,511 | Rice - - - | 13,559 | 10,592 | 12,163 |
| Sugar - - - | 6,151 | 7,271 | 7,681 | Jute manufactures - | 12,198 | 10,491 | 11,398 |
| Railway material - | 4,801 | 4,947 | 3,627 | Jute, raw - - | 11,982 | 13,223 | 10,059 |
| Machinery and millwork | 4,390 | 4,411 | 3,374 | Hides and skins - | 7,301 | 8,312 | 9,080 |
| Mineral oils - - | 2,129 | 2,606 | 2,097 | Wheat and wheat-flour | 6,097 | 1,241 | 8,869 |
| Provisions - - - | 1,827 | 1,875 | 1,933 | Tea - - - | 6,867 | 6,929 | 7,805 |
| Hardware and cutlery - | 2,110 | 1,951 | 1,844 | Cotton yarn - - | 5,982 | 6,454 | 6,473 |
| Woollen goods - - | 1,845 | 1,941 | 1,387 | Opium - - - | 5,782 | 6,233 | 6,209 |
| Apparel - - - | 1,722 | 1,612 | 1,588 | Wool, raw - - | 1,402 | 1,389 | 1,905 |
| Silk manufactures - | 1,423 | 1,521 | 1,511 | Lac - - - | 2,722 | 1,863 | 1,848 |
| Liquors - - - | 1,337 | 1,323 | 1,277 | Cotton manufactures- | 1,196 | 1,238 | 1,471 |
| Spices - - - | 1,041 | 916 | 858 | Coffee - - - | 743 | 927 | 731 |

*Imports of Merchandise.*—There was a slow revival in the trade in cotton manufactures after the heavy slump in 1908–9, but prices were low and unremunerative to importers. Another increase occurred in imports of sugar, which is mostly cane sugar from Java and Mauritius. Java, which obtained a footing in the Indian markets when the imposition of countervailing duties restricted supplies of beet sugar, provided in 1909–10 about 69 per cent. of the imports of refined sugar, besides sending large quantities of molasses and unrefined sugar. The falling-off in imports of metals and of machinery and millwork was due to slackened activity in indigenous mining and manufacturing enterprise. Imports of woollen goods greatly declined. Among articles the imports of which point to the growing prosperity of the people may be mentioned silk goods, sugar, mineral oils, hardware and cutlery, provisions, cigarettes, and glass and glassware. As regards railway stores, the Government imports of railway material should be added to the figures given above, thus bringing the total value of railway material imported to £5,594,000, a large decrease as compared with 1908–9. Railway material constitutes more than one half of the Government imports of stores.

*Exports of Indian Merchandise.*—The table brings out clearly the immense preponderance amongst Indian exports of raw agricultural produce, and the figures fluctuate widely according to the character of the season. The favourable season of 1908–9 caused a large increase in the exports during 1909–10 of raw cotton, rice, seeds, and wheat. Owing to the crop shortage in America the plentiful crop of Indian raw cotton was in wide demand at good prices. Wheat and flour exports were on an unusually large scale, while an abundant rice harvest in Burma and a smaller demand in India enabled large exports to be made. The exports of oilseeds were exceptionally heavy. The exports of raw jute were smaller in quantity and value. Hides and skins rose in quantity and value. The tea trade was again active, and high prices were realised. The trade in lac was not very prosperous.

Further details with regard to the trade in some of the principal agricultural products are given in Chapter V.

*Re-exports.*—The value of foreign merchandise re-exported from India is relatively small, and the trade is not progressive. Of the total in 1909–10, £2,259,090, cotton goods shipped to the Persian Gulf, Arabia, East Africa, &c. formed about 36 per cent.

*Trade by Countries.*—In comparing the magnitude of the trade of different countries with India great care is necessary. In the returns imports are classified according to the countries whence they were shipped direct to India, and not according to the countries of production, while exports are ordinarily credited to the countries containing the ports at which the goods are discharged, whether destined for those countries or not. Much of the trade shown as to or from Belgium is really trade with Germany, and Switzerland does a considerable trade with India through other countries. The figures as they stand show that the share of the United Kingdom

in the total trade in private merchandise in 1908–9 was 40·2 per cent.; while that of Germany was 7·2; of China, 6·8; of the United States, 5·9; of Japan, 4·9; of Belgium, 4·8; and of France, 4·5 per cent. Taking imports and exports separately, about 63 per cent. of the import trade (exclusive of Government stores) and 26 per cent. of the export trade was conducted with the United Kingdom. In consequence, however, of the re-exports of Indian produce, the proportion retained in England is considerably lower. The proportion of the trade assignable to other parts of the British Empire cannot be stated accurately, since the large transactions with Ceylon, the Straits Settlements, and Hong Kong, which are chiefly distributing centres, are really for the most part trade with foreign countries. As regards the self-governing colonies, the largest trade was done with Australia (£2,454,000).

The value of India's trade in private merchandise with the chief countries, for the last three years, has been as follows (in thousands of pounds):—

| Countries. | Imports from | | | Exports (Indian Merchandise) to | | |
|---|---|---|---|---|---|---|
| | 1907–8. | 1908–9. | 1909–10. | 1907–8. | 1908–9. | 1909–10. |
| | 000£ | 000£ | 000£ | 000£ | 000£ | 000£ |
| United Kingdom | 57,758 | 50,613 | 48,799 | 29,962 | 24,058 | 32,448 |
| Germany | 3,443 | 3,286 | 2,776 | 13,494 | 10,199 | 11,929 |
| China (including Hong Kong) | 1,466 | 1,549 | 1,504 | 9,989 | 11,975 | 12,301 |
| United States | 2,158 | 2,175 | 2,450 | 9,057 | 8,816 | 9,538 |
| Belgium | 3,538 | 3,448 | 3,043 | 6,096 | 4,116 | 6,782 |
| France | 1,355 | 1,207 | 1,159 | 7,668 | 6,408 | 7,955 |
| Japan | 1,445 | 1,411 | 1,657 | 5,914 | 4,782 | 8,357 |
| Straits Settlements | 2,097 | 2,334 | 1,973 | 4,547 | 3,505 | 4,008 |
| Austria-Hungary | 1,770 | 2,578 | 1,817 | 4,235 | 3,220 | 4,310 |
| Ceylon | 630 | 473 | 451 | 4,167 | 3,877 | 4,584 |
| Italy | 795 | 757 | 752 | 3,695 | 3,357 | 3,988 |
| Mauritius | 1,643 | 1,715 | 1,678 | 735 | 787 | 722 |
| Turkey | 408 | 464 | 377 | 1,330 | 1,183 | 1,375 |
| Russia | 268 | 186 | 99 | 648 | 678 | 554 |

A return has been prepared showing imports according to countries of consignment and exports according to countries of final destination in 1908–9. It appears from this return that the distribution of trade as given in the above table for that year is substantially accurate, except in the case of Germany and Belgium, imports from which were £4,875,525 and £1,548,061, and exports thereto £10,301,060 and £4,006,997 respectively.

The trade with China consists mainly in the exportation thereto of opium, cotton yarn, raw cotton, and jute goods, while silk and silk goods are imported. Germany sends chiefly woollen goods, cotton goods, apparel, musical instruments, liquors, glassware, paper, steel, iron, copper and other metals, hardware and cutlery, machinery, dyes, toys, umbrella fittings, salt, &c. in exchange for raw cotton and jute, raw hides and skins, rice, lac, oils, oilcake, rice-bran, coir, oilseeds, &c. She buys far more than she sells to India. Belgium takes raw cotton, oilseeds, manures, manganese ore, hemp, jute and jute goods, rice, &c. in exchange for iron, steel, dyes, glass, hardware and cutlery, cotton goods, &c. France buys large quantities of raw jute and cotton, lac, coffee, raw silk, hides and skins, and oilseeds, and sells apparel, silk goods, and liquors. The United States buys large quantities of tea, manganese ore, saltpetre, jute, raw and manufactured, hides and skins, and lac, and sells hardware, machinery, mineral oil, tobacco, cotton goods, and iron and steel.

*Trade of Chief Ports.*—The table in the margin shows the proportionate share of the six chief ports in the private trade with foreign countries in merchandise only.

| Port. | 1908–9. | 1909–10. |
|---|---|---|
| | Per Cent. | Per Cent. |
| Calcutta | 40·3 | 38·2 |
| Bombay | 30·1 | 31·2 |
| Karachi | 7·3 | 10·5 |
| Rangoon | 8·1 | 7·4 |
| Madras | 5·6 | 4·5 |
| Chittagong | 1·9 | 1·6 |

The value of the exports from Calcutta was greater through an increase in the trade in jute manufactures, grain, tea, oilseeds, &c., while raw jute declined; imports were higher owing mainly to larger imports of cotton goods and sugar. The increase in exports from Bombay was due to the larger shipments of seeds, wheat, cotton, &c.; while imports declined chiefly because of diminished purchases of railway material, machinery, &c., though imports of cotton goods were heavier. Exports of wheat, seeds, and raw cotton from Karachi were exceptionally large.

*Treasure.*—The net import of gold, which had been small in 1908–9, rose from £5,022,000 in that year to £16,620,000 in 1909–10. The net import of silver, which had been £8,046,000 in 1908–9, fell in 1909–10 to £6,296,000.

*Balance of Trade.*—The balance of trade rose from the low amount of £5,294,000 in 1908–9 to the high figure of £22,691,000 in 1909–10.

## Land Frontier Trade.

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a large and increasing trade with Afghanistan, Nepal, Western China, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), sugar, metals, salt, spices, and fish; and the chief imports into India, rice and other grains, provisions, wood, fruits, living animals, wool, hides and skins, oilseeds, drugs, and raw silk.

| Year. | Imports. | Exports. | Total. |
|---|---|---|---|
| | 000£ | 000£ | 000£ |
| 1907–8 | 5,670 | 4,643 | 10,313 |
| 1908–9 | 5,526 | 4,640 | 10,166 |
| 1909–10 | 5,638 | 4,545 | 10,183 |

## Coasting Trade.

The trade in merchandise carried by coasting vessels amounted to £38,780,000 in 1909–10, or about 1 per cent. more than in 1908–9. This amount is arrived at by adding to the value of the imports into British ports from other British ports the sum of the imports and exports in the trade between British and non-British ports in India. There was a decrease in rice, but mineral oil shipments from Burma to India were larger. Bombay sent larger quantities of cotton piece goods to Indian ports.

## Shipping.

During 1909–10 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,042, with a tonnage of 14,597,091, an increase of 7·7 per cent. as compared with 1908–9. Of the total, 98·6 per cent. was steam tonnage. Tonnage under the British flag represented about 80 per cent. of the whole. The number of German and Austro-Hungarian vessels has increased.

The number of vessels under the principal flags is given below :—

| Nationality. | 1905–6. | 1906–7. | 1907–8. | 1908–9. | 1909–10. |
|---|---|---|---|---|---|
| British | 5,796 | 5,657 | 5,659 | 4,949 | 5,495 |
| German | 387 | 371 | 375 | 437 | 455 |
| Austro-Hungarian | 162 | 159 | 157 | 156 | 220 |
| Norwegian | 174 | 195 | 188 | 106 | 95 |
| Italian | 85 | 77 | 79 | 76 | 81 |
| Dutch | 21 | 84 | 50 | 43 | 75 |
| Japanese | 2 | 83 | 123 | 79 | 63 |
| French | 105 | 67 | 61 | 55 | 56 |

## Freights.

The freight market was dull in the first half of 1909–10, but displayed great activity in the second half. The following statement gives minimum quotations for typical rates of freight from the chief Indian ports to London in March of each of the last five years :—

| —— | 1906. | 1907. | 1908. | 1909. | 1910. |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Calcutta—Rice | 0 15 0 | 0 17 6 | 0 15 0 | 0 15 0 | 1 0 0 |
| Wheat | 0 15 0 | 0 17 6 | 0 15 0 | 0 15 0 | 1 1 3 |
| Jute | 0 17 6 | 1 0 0 | 0 17 6 | 0 17 6 | — |
| Linseed | 0 17 6 | 1 0 0 | 0 17 6 | 0 17 6 | 1 0 0 |
| Tea | 1 13 9 | 1 15 0 | 1 12 6 | 1 12 6 | — |
| Bombay—Wheat | 0 13 6 | 0 15 0 | 0 13 0 | 0 12 0 | 0 14 6 |
| Cotton (to Liverpool) | 0 14 6 | 0 15 0 | 0 12 0 | 0 11 0 | 0 16 6 |
| Karachi—Wheat (to Liverpool) | 0 14 0 | 0 15 0 | 0 10 0 | 0 13 0 | 0 14 6 |

## Working of the Merchandise Marks Act.

*(For further details, see Statistical Abstract for British India, Table* 179.)

The Indian Merchandise Marks Act (IV. of 1889) was passed to prevent the fraudulent sale of goods bearing false trade marks or false trade descriptions (as of origin, quality, weight, or quantity). The Act also requires that all piece-goods must be stamped with their length in yards. Out of 2,084 detentions under the Act in 1909–10, 483 were on account of counterfeit trade marks or false trade descriptions, 1,329 (an exceptionally large number) for non-description or false description of origin, and 272 for unstamped or insufficiently stamped piece-goods. Detention is rarely followed by confiscation. Goods were released with a fine in 1,079, and without a fine in 1,000, cases. A new edition of the "Merchandise Marks Manual" was published in 1910.

## Joint Stock Companies.

*(For further details, see Statistical Abstract for British India, Tables* 210, 211.)

During the year 1909–10, 214 new companies were registered in India under the Companies Act (VI. of 1882), with a paid-up capital of about £240,500, while 148, with a capital of £707,000, ceased to work. The aggregate paid-up capital of 763 companies was increased by £3,446,000, while 68 companies reduced their paid-up capital by £100,000. The net result was that at the end of the year there were in operation 2,162 companies, with a paid-up capital of £40,789,000. There has been an increase of 70 per cent. in the total paid-up capital in the last 10 years. The companies are most numerous and important in the provinces of Bengal and Bombay, which possess 41 and 37 per cent. respectively of all the paid-up capital, while the share of Madras, which comes next, was less than 8 per cent. of the whole. The average of paid-up capital is highest in Bengal, where it amounts to £31,100, while in Bombay it is £27,500. In Madras the average is low, as 278 money-lenders, mostly carrying on a small business, are registered under the Companies Act. The distribution of paid-up capital among registered companies of the different classes was as follows :—

| | £ | | £ |
|---|---|---|---|
| Banking loan and insurance | 5,324,000 | Mills and presses - - | 17,531,000 |
| Trading and shipping - | 7,839,000 | Tea and planting - - | 2,503,000 |
| Mining and quarrying - | 5,654,000 | Other industries - - | 1,938,000 |

(The capital stated above represents in all cases share capital only; the total value of the debentures issued amounted to £4,890,000.)

As will be seen, the largest aggregate paid-up capital, £17,531,000, constituting nearly half the total, was invested in cotton, jute, and other mills and presses; and about 51 per cent. of the capital of such undertakings was invested (mostly in cotton mills and presses) in Bombay Presidency. Nearly a third of the capital of trading companies is invested in railways and tramways. The capital invested in coal companies (more than 97 per cent. of which is in Bengal) has quadrupled in the last 10 years.

There are, so far as is known, 311 companies which carry on work with sterling capital exclusively, or almost exclusively, in India, but which are registered elsewhere, and their paid-up capital amounts to £69,910,173, besides £42,930,022 debentures. The railways and tramways represent £36,301,076 paid-up capital and £37,833,848 debentures. Of the rest the sterling capital (including debentures) invested in the tea industry is £15,605,000, in jute mills £2,880,000, in cotton mills £400,000, and in rice mills £1,730,000. Thus, while the railway and tea concerns are mainly financed from abroad, the great bulk of the mill and press companies are registered in India.

# CHAPTER XI.

## PUBLIC WORKS.

| | |
|---|---|
| General. | Irrigation. |
| Railways. | Buildings and Roads (Civil). |

### General.

The operations included under the head of "Public Works" are of three kinds, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the control of the Government of India, or of the Railway Board, in so far as the powers of the Government of India have been delegated to it. The establishment employed on irrigation and on buildings and roads is subdivided into different Provincial services, controlled by the local administrations subordinate to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railways and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1909–10 is compiled from the Finance and Revenue Accounts:—

| — | Receipts. | Expenditure. | | |
|---|---|---|---|---|
| | | — | Charged to Revenue. | Not charged to Revenue. |
| | £ | | £ | £ |
| Railways - - - | 28,982,179 | Construction - - - | 1,245 | 6,321,617 |
| | | On Revenue Account - - | 28,157,257 | — |
| Irrigation - - - | 3,660,156 | Construction - - - | — | 1,052,349 |
| | | „ from Famine Relief Grant | 432,889 | — |
| | | On Revenue Account - - | 3,053,857 | — |
| Buildings and roads - | 268,786 | Civil Works - - - | 4,135,906 | — |
| Total - - | 32,911,121 | | 35,781,154 | 7,373,966 |

The expenditure charged against revenue includes the following items of "Interest on Debt":—Railways, £5,653,551; Irrigation, £1,058,711.

Of the permanent public debt on the 31st of March 1909, £186,517,746 is classed as incurred for railways and £32,256,945 for irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £3,357,708.

The engineer establishments of the Department are divided into (*a*) the Public Works Department and (*b*) the Public Works Department (Railway Branch). These establishments, including those of Bombay and Madras, but excluding that of the now separate Military Works Department, were increased during the year. The upper subordinate engineering staff is largely composed of Indians.

The following statement shows the strength of the superior engineer and upper subordinate establishments as they stood on the 30th June in 1910 and 1909 :—

| — | | Public Works Department. | | | Public Works Department (Railway Branch). | Total. |
|---|---|---|---|---|---|---|
| | | India. | Madras. | Bombay. | | |
| Civil Engineers (including Military Officers) - - | 1910 | 515 | 92 | 102 | 173 | 882 |
| | 1909 | 509 | 87 | 99 | 176 | 871 |
| Upper Subordinates - - | 1910 | 577 | 182 | 230 | 68 | 1,057 |
| | 1909 | 573 | 177 | 221 | 71 | 1,042 |

## RAILWAYS.

(*For further details see Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 78, 126 *to* 134.)

*Financial Results to the State.*—In the financial year 1909–10 there was a net gain of £824,922. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1909–10.

| — | Imperial. | Provincial. | England. (Sterling converted at £1=Rs. 15.) | TOTAL. |
|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ |
| Railways— | | | | |
| State railways—(Gross traffic receipts) - | 28,917,308 | 6,393 | 230 | 28,923,931 |
| Guaranteed companies—(Net traffic receipts) - | — 48 | — | — | — 48 |
| Subsidised companies—(Repayment of advances of interest). | 14,709 | — | 43,587 | 58,296 |
| TOTAL - - - £ | 28,931,969 | 6,393 | 43,817 | 28,982,179 |
| EXPENDITURE. | | | | |
| Railway Revenue Account— | | | | |
| State Railways— | | | | |
| Working expenses - - - - | 16,207,905 | 6,412 | — | 16,214,317 |
| Share of surplus profits, &c. - - | 322,483 | — | — | 322,483 |
| Interest on debt - - - - | 2,564,490 | — | 3,089,062 | 5,653,552 |
| Annuities in the purchase of railways - | — | — | 3,357,708 | 3,357,708 |
| Sinking funds - - - - | — | — | 165,206 | 165,206 |
| Interest chargeable against companies on advances. | 254,428 | — | 219,212 | 473,640 |
| Interest on capital deposited by companies - | 144,541 | — | 1,749,775 | 1,894,316 |
| Guaranteed companies— | | | | |
| Surplus profits, land and supervision - | — 1,764 | — | — | — 1,764 |
| Subsidised companies— | | | | |
| Land, &c. - - - - - | 39,188 | 1,224 | — | 40,412 |
| Miscellaneous railway expenditure - - | 36,013 | 1,374 | — | 37,387 |
| TOTAL - - - £ | 19,567,284 | 9,010 | 8,580,963 | 28,157,257 |
| | | Net gain - - £ | | 824,922 |

In the figures of expenditure are included all charges falling on the Government for the management and working expenses of railways, for interest on capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind, Punjab, and Delhi, Great Indian Peninsula and Madras railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkhand railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for control, for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

*Statistical Result of Working.*—The statistical results of working the various classes of railways during 1910 are given in the following table. The aggregate net earnings of all Indian railways, including steamboat service and suspense items,

but excluding indirect charges, produced a return of 5·38 per cent. on the total capital outlay on open lines, against 4·81 per cent. in the previous year:—

| Class. | Length of Line open on the 31st December 1910. | Total Capital Outlay on Open Lines to the 31st December 1910, including Steamboat and Suspense. | Total Number of Passengers carried. | Total Weight of Goods carried. | Gross Earnings, including Steamboat Service. | Working Expenses, including Steamboat Service. | Net Earnings, including Steamboat Service. | Percentage of Net Earnings on Capital Outlay on Open Lines. |
|---|---|---|---|---|---|---|---|---|
| *All Gauges.* | Miles. | £ | No. | Tons. | £ | £ | £ | |
| State lines worked by the State | 6,675·73 | 77,239,733 | 93,941,400 | 16,974,000 | 8,007,000 | 4,927,200 | 3,079,800 | — |
| State lines worked by companies*- | 17,920·57 | 184,040,200 | 217,027,700 | 43,493,000 | 22,204,867 | 11,394,667 | 10,810,200 | — |
| Companies' lines guaranteed under modern contracts. | 32·04 | 199,133 | 348,000 | 81,000 | 27,267 | 13,667 | 13,600 | — |
| District Boards' lines | 155·16 | 466,800 | 3,030,000 | 216,000 | 70,133 | 39,200 | 30,933 | — |
| Assisted companies' lines | 3,413·50 | 15,358,133 | 42,923,200 | 5,900,000 | 1,769,934 | 830,465 | 939,469 | — |
| Unassisted companies' lines | 35·27 | 76,667 | 604,200 | 50,000 | 8,333 | 5,467 | 2,866 | — |
| Lines owned by Native States and worked by companies. | 2,000·86 | 9,881,400 | 14,932,800 | 2,541,000 | 916,800 | 434,400 | 482,400 | — |
| Lines owned by Native States and worked by State railway agency. | 234·15 | 942,800 | 3,978,800 | 735,000 | 158,467 | 83,000 | 75,467 | — |
| Lines owned and worked by Native States. | 1,562·84 | 3,593,800 | 6,674,400 | 940,000 | 517,933 | 228,400 | 289,533 | — |
| Lines in foreign territory | 73·60 | 1,259,067 | 1,041,000 | 490,000 | 67,733 | 39,667 | 28,066 | — |
| TOTAL OF ALL RAILWAYS, 1910 | 32,103·72 | 293,057,733 | 384,501,500 | 71,420,000 | 33,748,467 | 17,966,133 | 15,752,334 | 5·38 |
| Ditto 1909† | 31,483·74 | 286,554,667 | 329,379,600 | 60,902,000 | 31,375,867 | 17,589,867 | 13,786,000 | 4·81 |

* The Birur-Shimoga, Hindupur, and Mysore-Nanjangud railways are included with the Mysore State railway under this classification, as separate figures for these lines are not available.

† As corrected from later information.

It will be observed that, with an increase of 619·98 miles, or 1·97 per cent. in the open mileage, as compared with 1909, the gross earnings increased by £2,372,600, or 7·56 per cent., and the working expenses by £406,266, or 2·31 per cent., resulting in an improvement of £1,966,334 in the net earnings.

*Mileage opened and under construction.*—The total railway mileage opened, under construction, and sanctioned for construction during the year was as follows:—

| Gauge. | Miles opened. | Miles sanctioned for construction. | Total Mileage under construction or sanctioned at the close of the Year. |
|---|---|---|---|
| 5′ 6″ gauge | 374·78 | 49·61 | 1,078·16 |
| 3′ 3⅜″ „ | 157·85 | 189·91 | 871·39 |
| 2′ 6″ „ | 47·46 | 66·23 | 726·39 |
| 2′ 0″ „ | 20·00 | — | |
| Total | 600·09 | 305·75 | 2,675·94 |
| *Add* correction of mileage | 19·89 | | |
| Net total addition to open mileage | 619·98 | | |

Among the lines opened during the year were the Sutlej Valley branch of the Southern Punjab railway, 210 miles in length, from Kasur to Lodhran, extensions of the Oudh and Rohilkund State railway from Balamau to Sitapur and Rosa to Sitapur, 37·28 and 49 miles respectively, and the Thanesar-Kaithal branch of the Delhi-Umballa-Kalka railway, 29·77 miles, all on the standard gauge; a section of the Degana-Hissar railway from Sujangarh to Churu, 55·17 miles, extensions of the Bhavnagar-Gondal-Junagad-Porbandar railway from Shahpur to Bantva and Sihor to Palitana, 19·31 and 16·81 miles respectively, and the Chupra Mushrak extension of the Bengal and North-Western railway, 26·32 miles, on the metre gauge; and a section of the Gondia Chanda railway from Nagbhir to Rajoli, 30·84 miles, on the 2′ 6″ gauge.

The most important lines sanctioned for construction during the year were the Gajroula-Chandpur extension of the Oudh and Rohilkund State railway, 22·15 miles, on the standard gauge; the Mirpur-Khas-Khadro railway, 49·5 miles, the Thawe Captainganj branch of the Bengal and North-Western railway, 59·75 miles, and the Bhairab Bazar-Tangi extension of the Assam-Bengal railway, 39·46 miles, on the metre gauge; and the Dabhoi-Jarod and Jessore Jhenidah railways, 24·78 and 36·8 miles respectively, on the 2′ 6″ gauge.

*Important Works completed and in progress.*—Full particulars in regard to the works completed and in progress during 1910, and projects for new lines under consideration during the year, will be given in the Administration Report on Indian Railways for 1910, which will be published as a Parliamentary Paper. A few details of the more important works of the year are, however, given below.

Important works in progress during the year included the Harsi Nagpur Railway with branches, 246·86 miles; the Allahabad-Rae Bareli-Cawnpore extension of the Oudh and Rohilkund railway, 153·31 miles; the Barharwa-Azimganj-Katwa extension of the East Indian railway, 102·7 miles; the Nagpur Chindwara railway with branches, 98·46 miles; the Kalabagh Bannu railway, 94·21 miles; the Hooghly-Katwa extension, East Indian railway, 65·2 miles; the Dharmapuri Hosur railway, 60·5 miles; and many other lines. Doubling of the line between Shegaon and Nagpur, 180 miles, was commenced in view of the opening of the Harsi Nagpur railway. The preliminary works for the Sara bridge over the Lower Ganges were practically completed, and a large quantity of English stores collected. The Beas and Sutlej bridges on the North-Western railway were completed; other bridges in course of construction were the Ganges bridge at Allahabad, the Tapti bridge on the Great Indian Peninsula railway, the Mahi river bridge at Yasad on the Bombay Baroda and Central India railway, and the Jumna bridge on the North-Western railway. Arrangements for the Indo-Ceylon connection have been finally approved and the construction of certain of the works commenced. An aerial ropeway designed to carry grain from the Kalka-Simla Railway goods terminus to the Ganj at Simla, a distance of 900 feet and at a height of 180 feet, was erected and brought into operation. The conversion of the Cooch Behar railway from the 2′ 6″ gauge to the metre gauge was completed. A commencement was made with the construction of the Southern Shan States railway, 100 miles in length, from Thazi on the Burma railways to Yawnghwe in the Southern Shan States.

*Projects for new Lines.*—Among the projects for new lines which were under consideration during the year, the most important were an extension of the Ahmedabad-Dholka railway from Dholka to Dholera *viâ* Gamph, which is still under investigation, extensions of the Southern Punjab Railway from Ferozepore to Kartarpur or Jullundur and from Lohian to Phillour, District Board lines in the Madras Presidency from Tinnevelly to Tiruchendur, Salem to Attur, Tiruturaipundi to Vedaraniem, which are awaiting a settlement of the terms on which the South Indian Railway Company will be prepared to construct and work them, a line from Guntur to Repalle proposed by the District Board of Guntur, and extensions of the Darjeeling-Himalayan railway from Siliguri to Kissengunge, Siliguri to Teesta bridge, Darjeeling to Lebong, and Ghum to Tukdak. The negotiations commenced in 1909 with private promoters for the construction of the Murtajapur-Pisgaon railway fell through, but a concession has since been granted to other private promoters for the construction of lines from Murtajapur to Ellichpur and Murtajapur to Yeotmal. Proposals from private promoters for the construction of lines from Broach to Jambusar (Bombay) and from Agra to Hathras were rejected by the Government of India; others in regard to the Mandra-Chakwal-Bhon railway, the Koregaon-Satara City railway, the Bodeli-Chota Udepur railway, the Dabhora-Ambaji Mata railway, and the Nadiad Kapadvanj railway are still under consideration. A scheme has been submitted to the Kashmir Durbar by a private syndicate for the construction of a ropeway from Jammu to Srinagar, a distance of about 200 miles, and the matter is under the consideration of the Durbar.

*Fares and Rates.*—Enhanced rates for passenger traffic (1st and 2nd class) on the Bombay, Baroda and Central India, Great Indian Peninsula, Madras and Southern Mahratta, and Oudh and Rohilkund railways were introduced during the year. On the Nilgiri railway second-class accommodation was abolished and first-class fares reduced; the maximum and minimum goods rates on the line were also revised. A new system of omnibus trains on the Darjeeling-Himalayan railway was introduced on 1st April 1910.

*Rolling-Stock and Safety Appliances.*—For the year 1910–11 a provision of Rs. 466 lakhs was made for additional rolling-stock for open lines. This provision is Rs. 184 lakhs less than that for 1909–10. The distribution of the total allotment under the head "Rolling-stock" was made in accordance with the demands submitted by railways, and the decrease in the demand indicates that the supplies of rolling-stock have become more adequate to the needs of the various railways.

The additions made during the year 1910 to the rolling-stock of the Indian railways consisted of 170 engines, 630 coaching vehicles, and 4,904 goods vehicles, the number under supply at the end of the year being 290 engines, 1,553 coaching

vehicles, and 5,863 goods vehicles. Good progress continues to be made in the provision of automatic brakes, communication gear between passengers and the train staff, bars and fastenings to windows and doors, electric and gas lighting of carriages, and the removal of continuous foot-boards and horizontal hand-rails.

*Accidents.*—Accidents occurred on the Bombay, Baroda and Central India railway, resulting in the death of two persons; on the Nizam's Guaranteed State railway, when four persons were killed; on the North-Western railway, when four persons were killed and seven injured; and on the Rohilkund and Kumaon railway, when six persons were killed. The damage to rolling-stock and permanent way was considerable.

*Damages by Floods and Rainfall.*—Owing to heavy rains throughout the year breaches occurred on the Bengal-Nagpur railway between Sambalpur and Raipur, causing a suspension of traffic for 14 days; on a section of the Tapti Valley railway, where through communication was interrupted for nine days; on the Gauhati section of the Eastern Bengal State railway, where through communication was interrupted for nearly two months; on the Katpadi-Gudur section of the Madras and Southern Mahratta railway, the Kotri-Karachi section of the North-Western railway, and on various places on the Burma railways, causing serious interruptions to traffic. In July 1910 the Sagauli-Raxaul, Samastipur-Darbhanga, and Sakri-Jainagar sections of the Bengal and North-Western railway were closed to traffic for several weeks, and serious breaches occurred on the Eastern extension of the Bengal-Dooars railway. Breaches by the sea occurred in several places on the South Indian railway between Rameswaram and Daniskkodi, involving stoppages of traffic aggregating 14 days.

*Amalgamation of the Civil and the Public Works Department Accounts Branches.*—With a view to securing more efficient financial control and, possibly, economy in working, the general administrative control of the audit of Public Works Accounts has been transferred to the Finance Department of the Government of India.

The post of Railway Accounts Officer under the Railway Board has been abolished and a new post, that of Accountant-General, Railways, has been created, the occupant of which has the status, as regards the Railway Board, of an Accountant-General, Civil Department, in relation to a Local Government, *i.e.*, he advises the Board on financial questions, but is not subject to their control.

*Amendment of the Indian Tramways Act.*—The sanction of the Secretary of State to the amendment of the Indian Tramways Act, XI. of 1886, to make it applicable to mono-railways and to electric tramways was received in 1910, and the Bill to amend the Act, with the views of the Local Governments and Administrations thereon, has been referred to a Select Committee.

*Branch Line Terms.*—As the terms promulgated by the Resolution of 1896 had practically failed to attract capital to investment in branch lines, revised terms were sanctioned in 1910. These terms provide, amongst other concessions, for an increase in the rate of guarantee from 3 to 3½ per cent. and of rebate from 3½ to 5 per cent., with equal division of surplus profits in both cases. They also give the State the right to purchase before the full contract period in certain eventualities.

*Taxation of Railway Companies by Municipalities.*—The general question of taxation of railway companies by municipalities has been engaging the attention of the Railway Board for some time, but a final decision has not yet been arrived at.

*General classification of Goods.*—The general classification of goods, as finally revised, was adopted from 1st July 1910, both in local and through booking.

*Grain Elevators.*—The question of the possibility of introducing the use of grain elevators on the North-Western State railway for the wheat export traffic was investigated by an informal committee during 1909. After careful consideration of their report the Government of India decided that this was a question in which the initiative could more suitably be taken by the Karachi Port Trust and by the traders concerned, than by the State railway serving the port. The Railway Board, however, agreed in the event of the Punjab Government deciding to erect a trial elevator on the North-Western State railway, to assist them by providing the necessary sidings and an experimental train fitted for carrying grain in bulk.

*Use of Local Manufactures for Railway Purposes.*—Purchases of wagon frames and bodies built by local firms continued to be made during 1910 for State-worked railways. The issue by the Government of India of the revised rules for the purchase of stores has been followed by the conclusion of arrangements whereby the services of the Superintendents of Local Manufactures under the Railway Board have been made available for the inspection of work for other Government Departments.

*Future working of Railways in Kathiawar.*—The Thakor Sahib of Morvi, having protested against the inclusion of the Morvi railway in the "coalition" of railways in Kathiawar, an arrangement has been made whereby each State shall, under certain conditions, be allowed to work its own line separately with effect from 1st January 1911.

*Terminal Arrangements for working Goods Traffic at Bombay.*—The proposals which were formulated in 1909 in this connection, reconciling the various issues and arranging for arbitration in case of any further minor difficulties arising, have received the confirmation of the Boards of the Great Indian Peninsula and Bombay, Baroda and Central India railways, and have been accepted by the Port Trust.

*St. John's Ambulance Institution.*—Attention continues to be devoted to the instruction of railway servants in giving first-aid to the injured.

*Extinction of the Indian Midland Railway Company.*—The contract, dated 2nd October 1885, between the Secretary of State and the Indian Midland Railway Company terminated on the 31st December 1910, and the Company ceased to exist; but the system continues to be worked by the Great Indian Peninsula Railway Company under the terms of their contract, dated the 21st December 1900, with the Secretary of State.

*Dwara-Therria Light Railway.*—The company formed for the construction of this line, 19·50 miles, which was sanctioned in 1902, having gone into liquidation, the Local Government, at the instance of the liquidator of the company, has sanctioned the transfer of the property and rights vested in the Dwara-Therria Railway Company under the Dwara-Therria Steam Tramway Order No. 44, dated the 14th August 1902, to Messrs. H. V. Low and Co., of Calcutta, subject to the stipulation that all dues outstanding to Government are paid in full before any formal transfer is effected.

## IRRIGATION.

(*For further details see Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 76, 119, 121, *and* 135.)

The class of works dealt with by the Public Works Department under the head of Irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination. The works under the former head take off, in most cases, from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. They have been utilised on the largest scale and with the most successful results in the United Provinces, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in Southern India, where irrigation is largely dependent on storage works. In the Madras Presidency alone there are some 60,000 tanks. These works are for the most part of native origin; but much has been done under the British Government in improving old tanks, and in constructing new works in Madras, the Bombay Deccan, Ajmere-Merwara, and the Central Provinces. In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. For the first time, in the Budget for 1911–12 the amount available for the construction of protective works from the grant for famine relief and insurance has been supplemented by a further grant from revenue under the head of "Minor Works and Navigation." The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

Speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in a few cases of old Native works, almost entirely reconstructed by British officers.

The following statement gives a general view of results obtained from working the canals for which full accounts are kept for 1907–8, 1908–9, and 1909–10:—

| — | Capital Outlay (Direct and Indirect) to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works | 33,709,544 | 3,465,033 | 1,201,393 | 2,263,640 | 6·71 | 14,225,000 |
| Minor Works | 4,069,076 | 317,979 | 117,229 | 200,750 | 4·93 | 1,889,788 |
| Total for 1909–10 | 37,778,620 | 3,783,012 | 1,318,622 | 2,464,390 | 6·52 | 16,114,788 |
| Total for 1908–9 | 36,171,572 | 3,692,483 | 1,257,618 | 2,434,865 | 6·73 | 16,435,527 |
| Total for 1907–8 | 34,543,031 | 3,565,722 | 1,235,577 | 2,330,145 | 6·74 | 16,076,888 |

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the irrigation receipts consist largely of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation in Sind is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the United Provinces and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owners' rate, which is directly levied, it falls upon the owner of the land.

The immense systems of artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on some of the larger irrigation canals, it cannot be said that, on the whole, they have met with success. In many cases the traffic receipts have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated.

*Bengal.*—The general results for 1909–10 of working all the irrigation and navigation systems for which full accounts are kept are compared with the results of the three previous years in the following statement:—

| Year. | Capital Outlay to End of Year. | Receipts. | Expenditure. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| 1906–7 | 5,432,579 | 188,927 | 124,472 | 64,455 | 1·19 | 904,087 |
| 1907–8 | 5,456,751 | 194,066 | 141,297 | 52,769 | 0·97 | 1,013,290 |
| 1908–9 | 5,596,502 | 207,410 | 127,600 | 79,810 | 1·42 | 1,015,325 |
| 1909–10 | 5,718,313 | 212,294 | 136,509 | 75,785 | 1·32 | 951,524 |

During the year under review there were in Bengal six major irrigation works, two of which were classed as protective. Of the productive works, three combine irrigation with navigation, and the fourth (Hijili tidal canal) is purely a navigation

work. The two protective works, the Dhaka and the Tribeni canals, were sanctioned in 1900–1, and are still in course of construction, the capital expenditure to the end of the year amounting to £36,346 and £317,748 respectively.

The financial results obtained from the working of the major and minor works, excluding the Tribeni canal, during 1909–10 are shown in the following statement:—

| | Canal. | Capital Outlay to End of Year. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|
| | | £ | £ | | Acres. |
| Major Works | Orissa Canals | 1,784,815 | 3,059 | 0·17 | 282,052 |
| | Midnapur | 566,360 | — *2,078* | — | 70,438 |
| | Sone Canals | 1,782,402 | 75,212 | 4·22 | 593,407 |
| | Hijili Tidal Canal | 174,343 | 387 | 0·22 | — |
| | Dhaka Canal | 36,346 | — *1,692* | — | 5,627 |
| | Total Major Works | 4,344,266 | 74,888 | 1·72 | 951,524 |
| Minor Works | Calcutta and Eastern Canals | 571,006 | 9,554 | 1·67 | — |
| | Orissa Coast Canal | 298,605 | — *2,917* | — | — |
| | Saran Project | 47,654 | — *374* | — | — |
| | Madaripur Bheel Route | 139,034 | 1,529 | 1·10 | — |
| | Total Minor Works | 1,056,299 | 7,792 | 0·73 | — |

Besides the minor works mentioned above, there are four works of this class for which capital accounts are not kept, viz., the Nadia river system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, comprising about 497 miles of channel, is used for navigation purposes only.

*United Provinces of Agra and Oudh.*—In the United Provinces the capital outlay on canals during 1909–10 amounted to £137,703, devoted mainly to protective works on the Betwa, Ken, and Dassan canals. Schemes for the Sarda Feeder canal, a canal from the Ramganga, the Ghaggar and Gorai canals, permanent headworks for the Ganges canal, and four large tanks in Bundelkhand were the principal features of the year's work in the extension of irrigation in the province. The gross receipts for all classes of works amounted to £739,462, or £22,559 less than in 1908–9. Working expenses amounted to £270,549 and the net revenue to £468,913, equivalent to a return of 6·28 per cent. on the capital outlay. The area irrigated was 2,512,865 acres, or about 10 per cent. less than in the previous year, due to the timely and well-distributed rainfall. The estimated value of the crops raised by canal water was £8,655,963.

*Punjab.*—The general results for 1909–10 of working all the irrigation systems in operation, for which full accounts are kept, are shown in the following statement, as compared with the results for the previous year:—

| | Canals. | Length of | | Capital Outlay to End of the Year. | Net Earnings. | Percentage of Net Revenue on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|---|
| | | Main and Branch Channels. | Distributaries. | | | | |
| | | Miles. | Miles. | £ | £ | | Acres. |
| Major Works | Western Jumna (including Sirsa Branch). | 301 | 1,536 | 1,158,182 | 69,107 | 5·97 | 490,994 |
| | Upper Bari Doab | 354 | 1,580 | 1,386,078 | 163,957 | 11·83 | 982,773 |
| | Sirhind (British portion) | 319 | 1,763 | 1,668,756 | 81,038 | 4·86 | 511,491 |
| | Lower Chenab | 427 | 2,289 | 1,899,184 | 514,881 | 27·11 | 2,212,699 |
| | Upper Sutlej | 326 | 393 | 116,649 | 18,261 | 15·65 | 336,961 |
| | Sidhnai | 68 | 131 | 87,789 | 24,526 | 27·94 | 272,571 |
| | Lower Jhelum | 150 | 1,094 | 1,076,598 | 110,345 | 10·25 | 731,465 |
| | Indus Inundation | 443 | 313 | 161,349 | — *16,733* | — | 229,077 |
| Minor Works | Shahpur (Imperial) | 66 | 72 | 14,394 | 3,318 | 23·05 | 39,600 |
| | Ghaggar (Imperial) | 44 | 24 | 22,888 | — *1,643* | — | 19,723 |
| | Total for 1909–10 | 2,498 | 9,195 | 7,591,867 | 967,057 | 12·73 | 5,827,354 |
| | Total for 1908–9 | 2,720 | 9,174 | 7,557,436 | 922,452 | 12·20 | 5,595,068 |

The increase in the net profit for the year was due to the favourable river supply generally. The decrease in the areas irrigated by the Western Jumna, Sirhind, and

Upper Bari Doab canals was due to the favourable rainfall in the districts served by these canals, enabling cultivators to dispense largely with canal water. Considerable damage was done to the Indus Inundation canals by a disastrous flood which swept the southern portion of the Dera Ghazi Khan district.

Excellent progress was made during the year with the construction work on the Upper Jhelum, Upper Chenab, and Lower Bari Doab canals, the total expenditure on these schemes alone amounting to approximately £720,000.

*Burma.*—In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works and navigation canals.

In Upper Burma major irrigation works had a good year; there was a normal rise in the receipts from the Mandalay canal, and the increase in the area irrigated gives promise that the original expectations in this respect may be reached. The area irrigated by the Shwebo canal fell owing to a deficiency in supply, but the revenue increased in consequence of a falling-off of remissions granted; there was a net revenue of over £13,300, and a return of over 6 per cent. on the capital outlay. The construction of the Môn and Ye-u canals was pushed on vigorously. Minor irrigation works showed an increase in revenue; the rainfall in the districts served by these works was good and uniform, and led to considerable increases in the small areas irrigated. Inundations from the two rivers in the Kyaukaè district destroyed some 40,000 acres of crops during the year.

*Central Provinces and Berar.*—Irrigation from works constructed by the State is a novelty to the people of the Central Provinces and Berar, and it is still necessary to offer its benefits on the most liberal terms in order to encourage their acceptance. The monsoon of 1909–10 was distinctly below the average, and the total area irrigated, 37,635 acres, exceeded by 278 acres the previous highest on record, viz., that of 1907–8, a scarcity year. A deficiency of 1,617 acres under the area irrigated by major works was more than made good by the extra area served from the larger number of minor works now in operation, and there is every prospect of a continuous rise in the area irrigated each year. On protective irrigation works the expenditure during the year amounted to £109,568, and on minor works to £32,659. The investigation of projects continued in 1909–10. Sufficient progress had been made by the end of the year to indicate that the Jamunia tank, the Wainganga canal, and the Mahanadi canal would prove to be productive works. A start was made on the construction of the Tendula canal and Asola Mendha tank.

*Madras.*—From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery to the small tanks and channels maintained by the Revenue Department. The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snow on distant mountain ranges.

The total outlay on irrigation works during the year 1909–10 amounted to £441,733, against £433,900 in the previous year. The area irrigated by all classes of works, including first and second crops, was 6,742,000 acres, exclusive of that under certain small works in the Chingleput district. The total revenue realised was £1,633,306, a decrease of £32,427 as compared with 1908–9.

The expenditure under capital account on major productive works was £60,106, incurred chiefly on the Nagavalli river project, the Kistna delta, the Divi pumping project, the Periyar system, the Shatiatope anicut, and the Cauvery delta systems. The area irrigated by works of this class was 3,312,888 acres, against 3,341,707 acres in the previous year. Gross receipts decreased by £8,070, and working expenses increased by £2,556. The profit after paying interest charges gave a return of 6·04 per cent. on the capital outlay; excluding the Kurnool-Cuddapah canal, this return amounted to 9·52 per cent. Under major protective works, the loss during the year was £6,947 against £7,455 in the previous year.

The capital outlay on the 40 minor works and navigation, for which capital and revenue accounts are kept, amounted to £14,503. The area irrigated and the net revenue derived were 343,693 acres and £31,892.

Up to the end of the year about 44·87 per cent. of the area to be investigated under the Tank Restoration scheme had been examined, and the expenditure during

the year amounted to £39,130. Two large projects—the Kistna and Cauvery reservoir projects—were being reinvestigated during the year.

*Bombay, including Sind.*—In the Bombay Presidency, excluding Sind, the water system does not as a rule admit of the construction of large irrigation works. The rivers or streams are mostly small and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or tanks. In Sind the success of the irrigation operations is dependent on the regular rise of the River Indus.

During the year the total expenditure upon irrigation works amounted to £485,000, as compared with £435,000 in 1908–9. Of this total, £177,300 was spent on works, £192,000 on repairs, and nearly £103,330 on establishment. The expenditure was divided between the Presidency and Sind in the proportion of £235,000 to £250,000. There was no famine relief outlay on irrigation works.

The total area irrigated from the Deccan and Gujerat works for which capital and revenue accounts are kept was 145,155 acres, against 142,928 acres in the previous year. The gross assessed revenue rose from £73,268 to £74,861.

In Bombay the season was on the whole a good one. In the northern division the Hathmati and Khari Cut canals irrigated record areas; in the central division there was an increase of 14,205 acres in the area irrigated, and of nearly £9,400 in the gross assessed revenue, compared with the average for the last 10 years. In the southern division there was a decrease of 790 acres in the total area irrigated by first-class works; the revenue, however, was practically the same owing to the demand for water for high-rated crops. The area irrigated under second-class tanks decreased by 580 acres; the revenue amounted to £14,340. On the Girna river the Chankapur storage works were approaching completion, and the Girna Left Bank canal was completed and opened for rabi irrigation. Satisfactory progress was made with the Godaveri canal project, despite the difficulty of obtaining labour. This work is estimated to cost £636,700, and to command an area of 239,698 acres.

In Sind the existence of cultivation depends upon irrigation, and there is constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results generally obtained from the working of irrigation canals in the province. In the year 1909–10 the inundation was on the whole good, though not so favourable as that of the preceding year. The area irrigated by all classes of works was 2,936,523 acres, against 3,354,738 acres in the previous year. The gross assessed revenue amounted to £512,987, the corresponding figure for 1908–9 being £550,281.

*North-West Frontier Province.*—At the end of 1909–10 three major works were in operation in the North-West Frontier Province. A fourth—the Upper Swat River canal—is in course of construction, the capital outlay to the end of the year amounting to £220,284. The results of working of the three canals in operation were as follows:—

| Canal. | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Revenue. | Percentage of Net Revenue on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Lower Swat river - - | 283,637 | 41,203 | 10,189 | 31,014 | 10·93 | 166,098 |
| Kabul river - - - | 70,306 | 11,278 | 5,067 | 6,211 | 8·83 | 43,370 |
| Paharpur - - - | 62,032 | 2,679 | 3,423 | —744 | — | 14,185 |
| Total - - | 415,975 | 55,160 | 18,679 | 36,481 | 8·77 | 223,653 |

*Baluchistan.*—The two chief irrigation works in the province are the Shebo canal and the Khushdil Khan reservoir, the working of which resulted in a gain for the year of £55 and £29 respectively. A third work, the Anambar Flood channel, is in working order, but as no colonists have so far settled near the canal, cultivation has not yet been begun. A new project, the Nar Nullah reservoir, is nearing completion.

*Coorg.*—During the year the investigation of the Harangi irrigation project in Coorg was still in progress. An irrigation channel was constructed in connection with the Balaji river, and improvements were carried out to other channels.

## Buildings and Roads (Civil).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of

Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The classification of this expenditure for 1909–10 under the various heads is shown in the following table :—

| — | Central Provinces and Berar. | Burma. | Eastern Bengal and Assam. | Bengal. | United Provinces of Agra and Oudh. | Punjab. | North-West Frontier Province. | Madras. | Bombay. | India General. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Imperial - - | 2,747 | 14,361 | 12,096 | 72,593 | 29,409 | 29,692 | 136,290 | 13,904 | 68,462 | 175,554 | 555,108 |
| Provincial* - - | 401,829 | 448,229 | 432,265 | 441,820 | 414,738 | 334,972 | — | 493,171 | 516,179 | — | 3,483,203 |
| Total - - | 404,576 | 462,590 | 444,361 | 514,413 | 444,147 | 364,664 | 136,290 | 507,075 | 584,641 | 175,554 | 4,038,311 |

* Includes expenditure by the Civil Department in addition to that by the Public Works Department.

| | |
|---|---|
| Expenditure by Civil Officers from Imperial Funds £ | 19,047 |
| Expenditure in England - - - - £ | 78,548 |
| Grand Total - - £ | 4,135,906 |

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty they have recourse to the professional skill of the Public Works officers.

The following short account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred :—

*Bengal.*—The principal buildings in course of construction for the Imperial Government were the new Commerce and Industry Secretariat, and some new offices and vaults for the Paper Currency Office in Calcutta.

Of those undertaken from Provincial funds, the two most important buildings finished were the Presidency Jail, Alipur, and the Agricultural College, Sabaur. Considerable additions and alterations were made to the premises of the old Duff College, Calcutta, to fit them for the headquarters of the northern police division; a boarding-house for the Calcutta Madrasah, hostels and staff quarters at Patna College, small-pox wards at the Campbell Hospital, Sealdah, and a new hospital and dispensary at Kurseong were completed. The new high level Tista Valley Road in the Darjeeling District was also finished.

*Burma.*—Imperial expenditure on Civil works decreased as schemes in progress were completed. About £7,000 was spent on a post office in Rangoon, quarters for postal signallers in Yenangyaung, alterations in wireless telegraphy stations at Victoria Point and Elephant Point, and the rebuilding of the Currency Office.

Under Provincial works a number of costly buildings and roads were under construction, but no new projects were commenced during the year. More attention was devoted to repairs, which rose by £10,000. The General Hospital and the Chief Court in Rangoon, the Police Training School and the Agricultural College in Mandalay, and the Veterinary School in Insein were equipped with necessary minor additions, and improvements were effected in 10 other hospitals and in accommodation for the Military Police in various hill stations. A few minor roads were completed, and progress was made with improvements to existing roads in the Delta and to the three important roads which give access to the Southern Shan States, the Yenangyaung oil-fields, and the ruby mines.

*United Provinces.*—In the United Provinces the Agricultural College at Cawnpore and the museum at Sarnath were under construction during the year. Other buildings in progress included the Lucknow School of Design, industrial schools at Gorakhpur and Lucknow, a carpentry school at Bareilly, a weaving school at Benares, and a high school at Meerut. A new first-class police station at Lucknow was finished, and the construction of the Medical College there was begun, whilst the Canning College in the same city made rapid progress. One hundred and twenty-seven miles of new metalled roads were constructed during the year, and 85 miles of new avenues were planted.

*Punjab.*—Imperial works in progress during the year included a new post office and telegraph office at Rawalpindi, a new telegraph office at Jhelum, a combined post and telegraph office at Dharmsala, and buildings for the Army Remount Department at Sarghoda. The Sophia Villa Estate at Simla was purchased for £5,000 as a part of the scheme for the provision of quarters for clerks of the Government of India Secretariats.

Under Provincial civil works, the following buildings, among others, were completed or in progress, viz., District Court buildings at Dharmsala, extensions and improvements to Barnes Court, Simla, Government House, Lahore, and the Agricultural College at Lyallpur, police stations at various centres, and a court and residence for the Assistant Commissioner at Fazilka.

A change of policy was adopted with regard to the construction and maintenance of feeder roads, all old and new completed roads being transferred to the local boards for future maintenance, the funds available for such purposes being made over to Commissioners for distribution.

*Central Provinces and Berar.*—Less than half the total expenditure during the year was on original works. Over £202,000 was spent on buildings, the most important new works being the new Secretariat buildings, the High Courts and Record Room at Nagpur, and certain houses at Pachmarhi and Nagpur required for the accommodation of officers. The sum of £186,700 was spent on communications, of which about half was devoted to original works.

*Eastern Bengal and Assam.*—Many important projects were dealt with during the year by the Public Works Department. Considerable progress was made with the construction of the new Government Houses at Dacca and Chittagong. In various parts of the Province many new residences, offices, circuit-houses, dak and inspection bungalows, barrack and other buildings were completed or under construction, and repairs were carried out to the mosque at Kusumba and to temples at Jaysagar and Kamrup.

Under the head of communications, good progress was made in the construction of new roads. Dredging and silt experiments were carried out on some rivers.

*Madras.*—There were no Imperial works of importance in progress, and the year's expenditure came almost entirely under the heads of Provincial and Local civil works.

The number of buildings completed or in progress was 301. The Agricultural College at Coimbatore was practically finished, and was opened during the year. The work on the Kolab bridge was abandoned and arrangements were made to bridge the Indravati river instead. Good progress was also made with the Bezwada and Salem waterworks. An estimate for dredging and for a marine survey for the port of Tuticorin was sanctioned, and a scheme to improve the port of Calicut was decided upon.

Under the head of Communications a few important roads are in the hands of the Provincial Public Works Department. Existing roads were improved or maintained in good order.

*Bombay.*—Under Imperial works, the important scheme for the location of the Coast Guard Fleet at Sivri was nearly completed. The new General Post Office at Bombay was also nearing completion; the Consulate buildings at Bander Abbas were finished, and a residence for His Highness the ex-King Thebaw of Burma was in progress at Ratnagiri. Under Provincial works, £48,890 were expended on police buildings, £45,000 on medical buildings, £42,670 on land revenue buildings, and £45,000 on educational colleges and schools. A total sum of £116,000 was spent on communications, the principal new work in progress being the construction of a bridge over the creek at Kalyan. No famine relief works were carried out during the year.

*Coorg.*—The expenditure on Public works amounted to over £17,000, including the cost of maintenance of existing communications. The chief original work completed was the construction of an iron bridge over the Harangi river at Kudige. Some 230 miles of roads were maintained, and two small bridges were constructed.

*North-West Frontier Province.*—No works of any great importance were carried out during the year, but a large number of buildings of considerable local utility were completed, notably the new district court and offices at Peshawar. A large amount of work was done in connection with the construction and improvement of roads and bridges throughout the province.

# CHAPTER XII.

## POST OFFICE AND TELEGRAPHS.

*(For further details, see Statistical Abstract for British India, Tables 45 to 47, 90 to 96, and 98 to 100.)*

### Post Office.

*Financial Results.*—The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, have been as follows:—

| Year. | Receipts. | Expenditure. | Net Revenue (+) or Deficit (—). |
|---|---|---|---|
| | £ | £ | £ |
| 1907-8 - - - | 1,823,999 | 1,772,720 | +51,279 |
| 1908-9 - - - | 1,825,620 | 1,896,753 | −71,133 |
| 1909-10 - - - | 1,927,229 | 1,927,582 | −353 |

*Extent of Postal Operations.*—The extent of the operations of the Post Office, and their development during the last three years, are shown in the following tables:—

| Year. | Post Offices. | Letter Boxes. | Village Postmen. | Length of Postal Lines.* |
|---|---|---|---|---|
| | No. | No. | No. | Miles. |
| 1907-8 - - - - - - - | 17,777 | 41,648 | 8,335 | 154,338 |
| 1908-9 - - - - - - - | 18,399 | 43,577 | 8,299 | 156,422 |
| 1909-10 - - - - - - - | 18,642 | 45,753 | 8,378 | 156,761 |
| Increase or decrease in 1909-10 as compared with 1908-9 | +243 | +2,176 | +79 | +339 |

* Including the Bombay-Aden line.

The general correspondence returns, of which a summary is given below, show an increase exceeding 44 millions of articles (excluding money orders) for 1909-10, as compared with the figures for 1908-9. Of the additional articles 19 millions were postcards.

| Year. | Letters and Postcards. | Newspapers. | Book and Pattern Packets. | Parcels. | Total. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| 1907-8 - - - - | 723,519,579 | 48,294,479 | 48,941,096 | 5,884,169 | 826,639,323 |
| 1908-9 - - - - | 767,922,728 | 50,107,799 | 51,084,486 | 6,140,819 | 875,255,832 |
| 1909-10 - - - - | 809,308,372 | 51,395,989 | 52,407,534 | 6,412,232 | 919,524,127 |
| Increase in 1909-10 over 1908-9 - | 41,385,644 | 1,288,190 | 1,323,048 | 271,413 | 44,268,295 |

*Alterations in Postal Arrangements during* 1909-10.—During the year there were few changes in the inland postal arrangements which directly affected the public. As regards foreign post, the rates of postage on parcels for France, Italy, Egypt, Canada, and certain other countries were reduced. Some extensions of the parcel post and foreign money order system were made. Arrangements were made for the payment under certain conditions of compensation (not exceeding Rs. 15) in the event of loss of, damage to, or abstraction from, uninsured parcels exchanged between India on the one hand, and Gibraltar, Hong Kong, Mauritius, the Seychelles, and New Zealand on the other.

*Amount of Postal Matter dealt with.*—The total number of articles received for delivery, including money orders, was nearly 944 millions, of which, it is estimated, 99·67 per cent. were actually delivered or paid, as compared with 99·69 per cent. in the preceding year.

The work of the dead-letter offices increased slightly, the increase being much less than that recorded for 1908–9. In 1909–10 the receipts of postal articles (excluding money orders) at the dead-letter offices were 9,215,748; of this number, 6,252,095 articles were either delivered to addressees or returned to senders, and 2,963,653 could not for various reasons, such as the absence of an address, be similarly treated. This last figure is only ·32 per cent. of the total number of articles given out for delivery.

The following table gives an estimate of the amount of postal matter exchanged with the United Kingdom and with other countries in 1908–9 and 1909–10:—

| Correspondence exchanged. | With United Kingdom. | | | With other Countries. | | | Total. | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1908–9. | 1909–10. | Increase. | 1908–9. | 1909–10. | Increase. | 1908–9. | 1909–10. | Increase. |
| Letters and Postcards | 20,333,000 | 22,250,000 | 1,917,000 | 9,000 000 | 11,833,000 | 2,833,000 | 29,333,000 | 34,083,000 | 4,750,000 |
| Newspapers, Book packets, and Samples. | 13,000,000 | 13,000,000 | Nil | 7,000,000 | 7,500,000 | 500,000 | 20,000,000 | 20,500,000 | 500,000 |
| Total - - | 33,333,000 | 35,250,000 | 1,917,000 | 16,000,000 | 19,333,000 | 3,333,000 | 49,333,000 | 54,583,000 | 5,250,000 |

*Insurance, Value Payable Post, Money Orders, Savings Bank, &c.*—Information regarding these branches of the work of the Post Office can be most conveniently given in a tabular form:—

| | 1908–9. | 1909–10. | Increase or Decrease. |
|---|---|---|---|
| INSURANCE OF LETTERS AND PARCELS:— | | | |
| Number of articles insured - - - - | 956,189 | 1,044,957 | 88,768 |
| Number of claims admitted - - - - | 53 | 59 | 6 |
| Net payment in respect of claims - - - | £529 | £178 | —£351 |
| Receipts from Insurance Fees - - - - | £20,670 | £22,240 | £1,570 |
| VALUE PAYABLE POST:— | | | |
| Number of articles sent - - - - | 6,393,575 | 6,870,979 | 477,404 |
| Value specified for recovery - - - - | £4,666,700 | £5,333,300 | £666,600 |
| MONEY ORDERS:— | | | |
| Value of Ordinary Inland Orders issued in India - | £24,270,266 | £24,745,953 | £475,687 |
| „ Telegraphic Money Orders - - - | £1,858,141 | £1,899,036 | £40,895 |
| Average value of an Inland Money Order - - | Rs. 16 a. 15 p. 1 | Rs. 16 a. 11 p. 8 | —3 annas 5 pies. |
| „ „ „ a Telegraphic Money Order - | Rs. 91 a. 6 p. 11 | Rs. 85 a. 7 p. 2 | —Rs. 5 a. 15 p. 9 |
| Value of Foreign Orders issued in India - - | £587,468 | £561,937 | —£25,531 |
| „ „ „ paid „ - - | £1,465,932 | £1,499,429 | £33,497 |
| SAVINGS BANK:— | | | |
| Number of Post Offices transacting Savings Bank business at end of year. | 8,501 | 8,767 | 266 |
| Number of accounts in Post Office Savings Banks - | 1,318,632 | 1,378,916 | 60,284 |
| Amount of Deposits at beginning of year - - | £10,120,956 | £10,156,101 | £35,145 |
| „ New Deposits during year - - | £3,487,732 | £3,702,887 | £215,155 |
| „ Interest credited „ - - - | £289,399 | £298,493 | £9,094 |
| „ Withdrawals „ - - - | £3,741,985 | £3,579,362 | —£162,623 |
| Amount of Deposits at end of year - - - | £10,156,101 | £10,578,119 | £422,018 |
| Securities held on behalf of Depositors at end of year - | £383,950 | £429,930 | £45,980 |
| Number of Accounts classified according to class of Depositor— | | | |
| I. Professional - - - - - | 425,376 | 441,565 | 16,189 |
| II. Domestic - - - - - | 222,925 | 233,876 | 10,951 |
| III. Commercial - - - - - | 53,785 | 57,047 | 3,262 |
| IV. Agricultural - - - - - | 29,262 | 30,747 | 1,485 |
| V. Industrial - - - - - | 49,110 | 52,228 | 3,118 |
| VI. Indefinite (including persons whose incomes are derived from others). | 538,174 | 563,453 | 25,279 |
| LIFE INSURANCE AND ANNUITIES:— | | | |
| Number of policies in existence at end of year - | 17,621 | 19,249 | 1,628 |
| Sum insured - - - - - - - | £1,625,851 | £1,773,075 | £147,224 |

*Offences.*—During the year under review there were 29 cases in which the mails were plundered by highway robbers, of which 19 were in British territory and 10 in Native States. The figures for the preceding year were 27 and 8 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 569. The defalcations and losses amounted to £3,130, as compared with £4,346 in 1908–9. A sum of £1,831 was recovered from the offenders or their sureties; £316 was charged against the Post Office Guarantee Fund, and the remainder was written off as irrecoverable or remained unadjusted at the close of the year.

*Staff.*—The total staff of the department numbered 92,163 on 31st March 1910, as compared with 91,187 on the corresponding date in 1909.

*Sale of Quinine.*—To facilitate the supply of the drug, especially in cases of malaria, quinine is sold at Post Offices throughout India. The supplies issued to Post Offices in 1909–10 slightly exceeded those issued in the previous year.

## TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 72,420 miles of line, 283,374 miles of wire, and 327 miles of cable.

The principal event of the year was the promulgation of a scheme for the reorganisation of the upper ranks of the Indian Telegraph Department, under which the rates of pay of the various grades were considerably improved. The changes included the formation of eight circles, each in charge of a director, coterminous with the existing postal circles, the increase of the number of divisions from 20 to 34 and the abolition of all sub-divisions, the delegation to directors of many of the powers previously exercised by the Director-General, and the formation of a purely technical branch under an electrical engineer-in-chief. The system of recruitment of the provincial branch of the service, appointments in which were previously restricted to students from the Thomason Civil Engineering College at Rurki, was modified so as to permit of these appointments being made by selection from the graduates in the engineering classes of any college which gives a suitable and adequate training in electrical engineering.

Other events of interest were the introduction of a mixed postal and telegraph service between India and the United Kingdom from 1st July 1909, and of a system of telegraphic money orders between India and Aden from 1st April 1910, the reduction of the press rates between Great Britain and India, Australia, and South Africa to 9*d.* a word with effect from 1st August 1909 and between Great Britain and Penang, Singapore, and Labuan to the same figure from 1st March 1910.

Field telegraph operations were carried out on a small scale in connection with a punitive police force sent into the Bastar State to quell a disturbance. No special wires were erected except a short line of about 2 miles in Jagdalpur; 28 camp offices in all were opened and closed.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

| Year. | Capital Expenditure. | Miles of Line. | Miles of Wire. | Miles of Cable. | Offices open to the Public. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Departmental, Ordinary and Postal combined. | Railway and Canal. | Total. |
| | £ | | | | | | |
| Up to beginning of 1905–6 - | *5,824,031 | 61,684 | 227,436 | 245 | 2,189 | 3,797 | 5,986 |
| During 1905–6 - - - | 380,474 | 2,699 | 15,776 | 34 | 120 | 122 | 242 |
| „ 1906–7 - - - | 379,798 | 2,814 | 15,648 | 42 | 129 | 142 | 271 |
| „ 1907–8 - - - | 272,745 | 1,371 | 10,529 | 50 | 106 | 179 | 285 |
| „ 1908–9 - - - | 239,671 | 1,140 | 8,342 | —14 | 114 | 75 | 189 |
| „ 1909–10 - - - | 167,955 | 2,712 | 5,643 | —30 | 104 | 148 | 252 |
| To end of 1909–10 - - | 7,264,674 | 72,420 | 283,374 | 327 | 2,762 | 4,463 | 7,225 |

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

A general view of the operations of the Department in 1909–10, in comparison with those of the four previous years, will be gained from the following statement:—

| Year. | Number of Messages during Year. | Gross Receipts, including State but excluding *pro formâ* Revenue. | Charges. | Net Receipts. | Percentage of Net to Gross Receipts. | Return on Capital. |
|---|---|---|---|---|---|---|
| | | £ | £ | £ | | |
| 1905-6 | 10,461,117 | 805,748 | 599,052 | 206,696 | 25·65 | 3·33 |
| 1906-7 | 11,385,166 | 827,744 | 644,205 | 183,539 | 22·17 | 2·79 |
| 1907-8 | 12,749,923 | 875,778 | 752,411 | 123,367 | 14·08 | 1·80 |
| 1908-9 | 13,006,778 | 874,795 | 783,022 | 91,773 | 10·49 | 0·70 |
| 1909-10 | 12,084,697 | 795,828 | 807,519 | —11,691 | — | — |

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1909–10 the receipts of the Department were not sufficient to cover even the working expenses, and there was a charge on Government revenues of £179,646.

The gross receipts fell short of those for any year since 1904–5; they were less than those for 1907–8—the best on record—by £79,950. This was due almost entirely to a reduction in inland message revenue, both private and State, consequent on general depression in internal trade. Working expenses, on the other hand, continue to increase. In 1909–10 they exceeded those of the previous year by £24,497, due chiefly to an increase of expenditure under "Signalling," consequent on the reorganisation of the establishment of that branch, and to the introduction of the new time-scale of pay for superintendents and assistant superintendents with effect from 19th December 1909. The net result for the year was a loss on working amounting to £11,691.

The number of telegrams decreased during the year by 7·11 per cent., and their value by 11·65 per cent., due to the causes referred to above.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively:—

| Class of Telegram. | 1908–9. | | 1909–10. | |
|---|---|---|---|---|
| | No. | Value. | No. | Value. |
| | | £ | | £ |
| Inland State | 976,208 | 106,720 | 834,435 | 51,437 |
| Foreign State | 15,820 | 3,433 | 15,174 | 3,640 |
| Total State | 992,028 | 110,153 | 849,609 | 55,077 |
| Inland Private | 10,861,923 | 406,608 | 9,963,541 | 376,066 |
| Foreign Private | 1,152,827 | 132,560 | 1,271,547 | 144,027 |
| Total Private | 12,014,750 | 539,168 | 11,235,088 | 520,093 |
| Total State and Private | 13,006,778 | 649,321 | 12,084,697 | 575,170 |

The subscriptions to the Telegraph Department for telephone and similar services rendered during the calendar year 1909 amounted to £32,592, being an increase of £5,462 over the figures of the previous year. The average annual subscriptions for the past five years amounted to £22,946.

Numerous interruptions occurred during the year on the lines to foreign countries, notably on the Turkish and Teheran routes to Europe and on the Moulmein-Bangkok and Raheng lines to Siam.

New wireless telegraph stations were opened at Bombay and Jask during the year, that at the latter place being subsequently handed over to the Indo-European Telegraph Department. Communication between the other stations and with vessels at sea was maintained throughout the year.

## Indo-European Telegraph Department.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi is controlled by the Indo-European

Government Telegraph Department, and consists of 1,946 knots of cable, 2,724 miles of line, and 6,988 miles of wire. This also includes a cable from Jask to Muscat, 218 knots in length.

The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

| Year. | Total Capital Outlay. | Gross Receipts.* | Expenditure. | Net Receipts. | Percentage of | |
|---|---|---|---|---|---|---|
| | | | | | Net Receipts to Capital. | Expenditure to Gross Receipts. |
| | £ | £ | £ | £ | | |
| 1905-6 - - - - | 957,491 | 111,082 | 59,457 | 51,625 | 5·39 | 53·52 |
| 1906-7 - - - - | 988,204 | 102,674 | 72,104 | 30,570 | 3·09 | 70·22 |
| 1907-8 - - - - | 997,094 | 109,002 | 75,690 | 33,312 | 3·34 | 69·44 |
| 1908-9 - - - - | 998,142 | 103,689 | 75,287 | 28,402 | 2·84 | 72·60 |
| 1909-10 - - - - | 1,000,263 | 111,489 | 72,084 | 39,405 | 3·93 | 64·65 |

* This represents the revenue of the Department after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The gross earnings of the year increased by £7,800, due to an increase of both Indian and trans-Indian traffic. Working expenses decreased by £3,203, mainly due to smaller payments on account of furlough allowances, office contingencies, and repairs to cables, and to two instalments only of the rental for the Central Persia line having been paid instead of three as in 1908–9. The capital expenditure of £2,121 incurred during the year was used mainly on the construction of buildings in the Persian and Persian Gulf sections.

The number of messages transmitted during the year amounted to 274,092, being an increase of 19·22 per cent. as compared with 1908–9, due, as explained above, to an increase in traffic.

Under the Joint Purse Agreement, the share of the Department was £8,255 more than last year, being £115,306, as against £107,051 in 1908–9. This was principally due to the increase of traffic mentioned above. The amount paid into the Joint Purse for the year under review was £60,346.

The Departmental receipts from the Australasian Message Fund for 1909-10 amounted to £6,049, being £113 more than in 1908–9, and a decrease of £186 on the receipts for 1899, on which the original Australasian Message Fund was based.

There were no total interruptions between Karachi and Teheran during the year, but between Teheran and London the lines were totally interrupted for an aggregate of 15 days 21 hours, due in many cases to failure of the cables between Lowestoft and Emden. Acts of wilful damage again increased, numbering 1,384, or 172 more than in the preceding year.

In December 1909 a wireless installation was established at Jask by the Indian Government Telegraph Department, and was taken over by the Indo-European Telegraph Department on 24th January 1910.

# CHAPTER XIII.

## SCIENTIFIC DEPARTMENTS.


| | |
|---|---|
| General. | Agricultural Departments. |
| Board of Scientific Advice. | Civil Veterinary Department. |
| Survey of India. | Forest Research Institute. |
| Other Surveys. | Archæological Department. |
| Meteorological Department. | Medical Research Institutes. |


### General.

Owing to the progress made in recent years in the application of science to various branches of the work of Government, a special chapter is now necessary for dealing not only with surveys, but also with other scientific departments that have been established by the Imperial or Provincial Governments for the conservation and development of the natural resources of the country. In 1909–10 expenditure on Scientific Departments amounted to about £610,000, against which must be set about £73,000 for receipts. The great bulk of the expenditure was for agricultural and veterinary work and for survey work.

### The Board of Scientific Advice.

This Board includes the heads of the Meteorological, Geological, Botanical, Forest, Survey, Agricultural, and Civil Veterinary Departments, and other scientific authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The programmes of investigation of the various departments are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society, who from time to time furnish valuable suggestions and advice. The Board's report for 1908–9 was published in 1910.

### Survey of India.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical and forest surveys, special surveys and explorations, and map production. The latest available information on most of these matters relates to the year ended 30th September 1909. The total cost of the Department for that year was about £216,000. The Department has been materially expanded during the last few years, and the work has improved owing to closer supervision and the better instruction of field surveyors and draughtsmen.

In 1904 attention was drawn to the defective state of the topographical survey maps, and a Committee was appointed to report on the subject. To overtake the arrears of revisional survey and to secure that the map of India should be brought up to date and revised at proper intervals, they recommended a considerable increase of establishment and an increased expenditure of £210,000 a year for the next 25 years. They also made recommendations for altering the size and improving the quality of the maps. After further inquiry the Government of India decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile, and the ½ inch scale employed for waste and barren tracts. This decision will somewhat reduce the standard of establishments and expenditure proposed by the Committee.

During 1908–9 field operations were carried on by 17 survey parties and three detachments. Twelve parties and one detachment were employed on topographical and forest surveys; one party on principal triangulation; four parties on purely scientific operations; and two detachments on cantonment surveys.

*Trigonometrical Survey.*—The triangulation party, working in five principal and four secondary detachments, continued the series of principal triangulation; eight triangles, covering 3,500 sq. ms., were completed in Baluchistan; seven triangles, covering 1,900 sq. ms., in the N.W. Frontier Province; and nine triangles, covering 4,200 sq. ms., in Burma (Shan States). Work was also begun in Upper Burma and Kashmir.

*Special Operations.*—Pendulum observations were taken at 12 stations in Central India with the object of investigating the structure of the Vindhya and Satpura ranges.

*Tidal and Levelling Operations.*—The new tidal observatory at Moulmein was opened. The recording of tidal curves by self-registering gauges, their reduction, and the publication of tide-tables were continued during the year at the eight permanent stations. Three detachments were engaged on levelling operations.

*Magnetic Survey.*—The preliminary magnetic survey was finished (excepting the Himalayan Karakoram regions) with the completion of observations along the coast of Burma. The detailed magnetic survey was commenced. The reduction of the preliminary survey is in hand.

*Topographical and Forest Surveys.*—The total area of detail topographical and forest surveys on all scales during the year was 42,600 sq. ms. Of the total area, 9,509 sq. ms. were covered in Burma, where a five years' programme of topographical survey was arranged in 1905, embracing a large portion of the more important tracts of country. All reserved forests are now surveyed, principally on a scale of 2 inches to the mile, in the course of the general programme. During the year forest surveys were carried out in seven provinces.

*Headquarters Offices.*—The results of the reorganisation of the publication offices have been very satisfactory. The general maps are still far from completion, but satisfactory progress is being made. The number of maps issued during the year was 104,661.

### Other Surveys.

*Marine.*—Two marine survey vessels, the "Investigator" and the "Palinurus," thoroughly equipped for modern requirements, have been placed on the service.

*Geological.*—The first object of the Geological Survey Department is the preparation of a general geological map of India, and this work was continued during 1909 by surveys in Burma, Rajputana, Central India, Kashmir, and the Punjab. Various economic investigations, which form an increasingly important part of the Department's work, were conducted. These included the revision of the map of the Raniganj coal-field, and inquiries into occurrences of copper and coal in Sikkim, petroleum in Burma, &c. Inquiries were conducted into the salt resources of Myingyan in Burma. Many applications were received for advice regarding the search for artesian water in various parts of India.

*Botanical.*—Plant collections were made by or on behalf of the Botanical Survey in different parts of India. The study of economic problems forms no part of the work of the Botanical Survey as such, but much work of this kind was done by the officers of the Survey who serve as Economic Botanists to the local Governments.

*Zoological.*—The work of the Zoological Survey in 1909 included surveys of fresh-water fauna, studies in marine zoology, Indian rats, fish, &c.

### Meteorological Department.

The work of the Meteorological Department falls into two parts, the directly useful, and the purely scientific, aiming at the ascertainment of facts that shall be of practical utility in future. The scientific work includes the experimental and theoretical examination of the physical processes, on the earth or in the sun, which determine the weather. The practical work consists chiefly in the collection and distribution of current weather information. The area under observation by the Department embraces not only India but the whole of the Arabian Sea and Indian Ocean, the Persian Gulf, Persia, Arabia, Chinese Turkestan, and Tibet. There were 277 observation stations (of which 50 were non-departmental) at the close of 1909–10, ranging from the well-equipped observatories at Kodaikanal, Madras, Bombay, Alipore (Calcutta), Allahabad, and Lahore, to small stations at which observations of temperature, rainfall, and snowfall only are recorded. The Department inspects their working and collects

the results; it also studies the meteorology of the Indian Ocean by means of the logs of vessels arriving at Indian and other ports, and conducts seismographic observations. Experimental work for determining the conditions of the upper air by means of small free balloons was continued during the year. Special investigations comprised wind observations, solar and terrestrial radiation observations, sunshine observations, seismological observations, barometric observations, and observations of temperature. Great attention is now paid to the correct registration of rainfall. The actual rainfall of the last ten years compared with the normal will be found in the annual *Statistical Abstract of British India* (Table 118). Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 941 such warnings were issued during 1909–10. The publication of the meteorological atlas of the Indian seas has placed a large amount of valuable information at the convenient disposal of ship captains.

## Agricultural Departments.

*General.*—The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised. It is based on the generally accepted principle that effective improvement in Indian agriculture depends largely, or mainly, on the application of European science to Indian conditions. Although India is a land of skilled agriculturists, the outturn per acre of many crops is comparatively small, and the quality of some kinds of produce is inferior. Much can be done to improve and develop Indian agriculture by energetic research and by the application of more scientific methods and greater scientific knowledge than were formerly available. The necessary scientific knowledge must inevitably be obtained in the first instance by the recruitment of trained specialists from the United Kingdom; but it is an essential part of the scheme that facilities for the best agricultural training shall be made available in India, in order that the country may become self-supporting, so far as possible, in the scientific development of agricultural methods on lines suited to local conditions.

India now possesses an Imperial Department of Agriculture, under an Inspector-General and an Assistant Inspector-General, while there are nine provincial Departments of Agriculture under Directors and (usually) Deputy-Directors. To the Imperial Department is attached the Pusa Central Research Institute and Agricultural College, which has been provided with a Director and European experts in agriculture, entomology, botany, mycology, chemistry, and bacteriology, together with a cotton specialist. Further, there have been established in seven provinces an agricultural college and a research station, equipped with laboratories and class-rooms, and connected with a farm of suitable size. The principals of the colleges have a staff of chemists and botanists. In Eastern Bengal and Assam there is a special fibre expert. In the various provinces there is a number of agricultural stations and of botanical, horticultural, and agri-horticultural gardens. The provincial departments distribute selected seeds and manures, and furnish advice as to implements and crops.

There is a Board of Agriculture of 38 members which suggests and reviews programmes of work and discusses current problems. Agricultural memoirs and an agricultural journal are published.

*Pusa Research Institute.*—The Phipps Laboratory at Pusa is now fully equipped, and practically the whole of the Institute estate is under grass or arable cultivation. Pusa is chiefly a higher teaching institution for post-graduate studies in one branch of research. Last year there were 62 students, of whom 13 were drawn from provincial agricultural colleges or other colleges. Experiments were undertaken in connection with manures and permanent pasture and the preservation of fodder, while the crops under trial included wheat, rice, and other food grains, pulses, oil-seeds, maize, *sann* hemp, cotton, jute, sugar-cane, flax, tobacco, and fruits. One of the most important lines of work is the breeding and rearing of farm live stock. Poultry breeding is undertaken. Experiments in growing stronger wheats with better milling qualities have been very successful, and are likely to have a great effect in the production of wheat in India. A monograph on Indian wheats has been published. Fruit cultivation has been successfully established. An inquiry is proceeding on the subject of the prevention of injury by weevils to wheat and other grains. A general study of the oil-seeds of India is to be undertaken. A study was made of the water

requirements of crops. The plant diseases (*e.g.*, in the tea-plant and palms) due to particular parasites have been studied. The entomologists have conducted experiments in *eri* and *tussar* silk, while practical instruction has been given in lac cultivation. A new work on "Indian Insect Life" was published. The Imperial Cotton Specialist has been examining the varieties of cotton in different provinces and making recommendations as to their cultivation.

A brief sketch will now be given of the work carried out in each province during 1909–10 in connection with agricultural development.

*Bengal.*—The main buildings of the provincial agricultural college at Sabaur are complete, and it is now in working order. No addition was made to the number of agricultural stations, which are designed eventually to be representative of the six agricultural tracts of the province. There are seven Government stations, besides a demonstration farm at Kalimpong. The Bengal Provincial Agricultural Association met three times to discuss agricultural problems. The 26 agricultural shows and fairs held during the year received grants-in-aid from Government, and at most of them the Department exhibited seeds, manures, and improved implements.

Samples of food-stuffs, manures and soils were analysed, and special research in connection with sugar-cane was continued with useful results. Experiments were made in connection with the soy-bean, paddy, potatoes, wheat, ground-nut, cotton, jute, and cassava. The Government has granted Rs. 32,500 a year for five years in aid of the indigo research work at Sirsiah. Investigations were made regarding insect pests that attack hemp, indigo, paddy, and other crops. Experiments with agricultural implements were continued. The Department prepared leaflets on sugar-cane, paddy, potatoes, and other subjects, and a note on sericulture in Bengal. A quarterly journal of agriculture is published. Large quantities of seeds, manures, and agricultural implements were issued from the Government store.

The Director, aided by a committee of four silk experts, is inquiring into the improvement of the Bengal silk industry, which had declined owing to the prevalence of disease. A central nursery with mulberry farm and rearing houses at Berhampore and 18 small subsidiary nurseries have been established to rear and distribute pure seed, *i.e.*, live cocoons, to rearers of silk-worms. Six sons of professional rearers are under training. Experiments were continued at the *tasar* silk-rearing station at Chaibassa.

Work in connection with inland fisheries has been incorporated with that of the Department, and two assistants have been appointed, who investigated carp culture and the spawning grounds of *hilsa*.

*United Provinces.*—There has been a remarkable growth of public interest in the improvement of agriculture and stock-breeding, and in labour-saving appliances, especially chain pumps, improved iron ploughs, and sugar machinery. This increase of interest has led to many requests for advice, &c. The seed depôts, which issue wheat, cotton, ground-nut, and other seeds to cultivators, are much appreciated. These depôts are being managed with a view to their transfer to co-operative societies. A trained staff of borers has been placed under the control of district officers to help the people in well-sinking, which has been facilitated by advances of capital. The well-boring staff was constantly engaged with very satisfactory results. A post of agricultural engineer has been created temporarily to deal with wells, &c. The Cattle Conference, held at Lucknow in 1909, furnished much useful information. A cattle survey is being conducted. Good progress was made with arboriculture. Four training centres for students of sugar manufacture were maintained, and 51 students trained. Investigations of cotton, sugar-cane, wheat, maize, juar, ground-nut, rice, hemp, manures, &c. were in progress at the four agricultural stations. Vernacular pamphlets were issued on the cultivation of lucerne, the use of reaping machines and winnowers, and maize cultivation. The Urdu agricultural journal increased its circulation. There were several shows and fairs, and much preparatory work was done for the United Provinces Exhibition at Allahabad. The Cawnpore Agricultural College was brought to its full strength, and 33 students obtained diplomas.

*Punjab.*—The Agricultural Department is already making its influence felt, especially in the canal colonies, in which an agricultural station and seed farm are situated. An agricultural station for the Eastern Punjab has been opened at Gurdaspur. The Department has been chiefly occupied in experiments with new and improved varieties of cotton, wheat, sugar-cane, &c., and with the introduction of reapers, ploughs, and other agricultural machinery which, owing to scarcity of labour,

is growing in popularity. A commercial firm have deemed it worth while to relieve the Department of the work of distributing mechanical reapers and some other implements. Demonstrations of implements were given at the Lahore Agricultural and Industrial Exhibition, 1909, and fodders, seeds, diagrams of plant diseases, &c. were exhibited. Inquiries into the milling and baking qualities of Punjab wheats have shown that the red wheats, which are most suited for cultivation, are also superior for milling and baking to the soft white wheats which have hitherto been most in demand for export. As wheat occupies a third of the cultivated area of the province, this information has been widely circulated in a bulletin. Efforts are now being made to "strengthen" and standardise the wheat grown. Considerable advance has been made in selecting cotton seed suited to the province, and an acclimatised American variety has been grown with success. Experiments have been made in improving date cultivation, as well as in bee-keeping and poultry farming. Attempts to revive sericulture in the province are being continued. A staff has been trained to undertake well-boring. The first year of the new Punjab Agricultural College at Lyallpur was fairly successful, and special attention was given to practical field work. There were 35 students at the close of the year.

*North-West Frontier Province.*—Experiments made with cotton in two districts were not very successful. An Agri-Horticulturist, who has taken the place of a Deputy Director of Agriculture, will devote special attention to fruit culture, which is of particular importance in this province.

*Central Provinces and Berar.*—The superior staff of the Department is insufficient for the work that should be done, though six new assistants joined the staff during 1909–10. A larger subordinate staff is needed for the important work of demonstration, which is being extended in co-operation with the Irrigation Department. The Agricultural College at Nagpur was well attended. Provision is being made for proper laboratories and for instruction in entomology and agricultural engineering. There were 47 students. The "Agricultural Gazette" increases in popularity, and its circulation has risen to 5,680 copies. There are four agricultural stations as well as eight seed farms which distribute selected wheat, cotton, and other seeds. Cotton-seed sold from the Akola Government farm and 22 private farms was sufficient to sow 10,000 acres. Progress was made in experiments with cotton, ground-nut, and wheat. Demonstration work to show the advantages of transplanting and irrigating rice was carried out at Labhandih farm. Much attention has been paid to the demonstration of improved implements, and certain simpler descriptions, especially turnwrest ploughs, cornshellers, winnowers, hullers, and chain pumps, are gradually obtaining a sale. A bulletin on wheats was issued. The District Agricultural Associations, consisting of representative landowners, show an active interest in improvements, and are an invaluable link between the Department and the farmer in the introduction of new varieties of crops and of improved methods of manuring recommended by the Department.

*Burma.*—The staff and the operations of the new Agricultural Department were again curtailed through lack of funds. The agricultural station at Mandalay was fully worked, but the formation of another station was postponed. It has been decided that the time is not ripe for the establishment of an agricultural college. The growing interest taken in the work of the Department by the public is very gratifying, and its simple improved implements are gaining acceptance. A comparative study of wheat, cotton, jowar, and various pulses was undertaken; reports were provided on sugar-canes; inquiries were made regarding *taungya* soils and canal and river silts, and cotton and other pests were studied. Experiments have established the cultivation of moisture-resisting paddy in Arakan, ground-nuts in the dry zone, and wheat in the Chin Hills. A careful investigation is being made of the effects of soil and manure ingredients on the growth of paddy, and also a study of the best varieties of paddy, which is by far the most important crop in Burma. A number of cultivators' leaflets were distributed on the cultivation of *sann* hemp and on implements, insect pests, &c.

*Madras.*—The staff of the Agricultural Department was strengthened by the addition of a mycologist and of a scientific officer deputed to help the planting industries. The College of Agriculture and Research Institute at Coimbatore has been opened. Much useful experimental and demonstration work on the main food and industrial crops was done at the 10 agricultural stations. Efforts were continued to improve cotton cultivation and obtain a superior strain of cotton by careful seed selection. Experiments were also made with paddy, ground-nut, &c. The introduc-

tion of a Mauritius sugar-cane in some districts has been attended with great success. There was a further increase in the number of oil-engines and pumps used for irrigation. There is a great demand for these boring appliances. Entomological assistants were engaged in the study of the paddy stem borer, the pepper fungus, and other agricultural pests, and operations for the eradication of the palmyra palm disease in Godavari were continued, and were extended to the Kistna district. Leaflets were issued on paddy cultivation, cotton cultivation, manuring, &c. The ryots are on good terms with the officers of the Department. They visit the farms, buy seeds largely, and adopt improvements recommended. Good work was done by some of the Agricultural Associations to popularise new crops and methods in their districts, and to organise exhibitions and cattle shows.

*Bombay.*—The year was one of varied activity and substantial progress. At the 10 agricultural stations and farms experiments were made with jowari, oil-seeds, pulses, tapioca, ground-nuts, tobacco, potatoes, and wheat. Experiments were directed to deciding between the merits of different varieties of the same crop and their behaviour under various conditions and to the improvement of types by selection and hybridization. Much attention was paid to the seed distribution of Broach cotton in Dharwar and Belgaum, and to American and Cambodian cottons. Tree cottons were also investigated. Tillage experiments were made to ascertain the results of deep ploughing and to determine the best time for tillage operations. Attention was also given to dry-farming, sericulture, silage, and the prevention of crop pests. Cultural experiments were undertaken at Surat to elucidate the comparative advantages of deep and shallow cultivation. The value of the American method of "dry-farming" as applied to *rabi* cultivation was demonstrated. Certain foreign varieties of ground-nut have proved superior to the indigenous kind, and are being widely distributed. It is regrettable that higher qualities of cotton, wheat, &c. do not always fetch correspondingly high prices, and the cultivators are therefore inclined to sacrifice quality to quantity. Again, cultivators are careless about separating varieties of seed. Manures received much attention, and the strength and lasting value of crude nightsoil were again made evident. The value of mineral manures was also proved, especially for cotton. There was a keen public demand for selected seeds, concentrated manures, and improved implements. There was a marked increase in demonstration work, and agricultural shows were more numerous than in 1908–9. An Agricultural Conference and Exhibition was held in Poona. A large number of bulletins and leaflets was issued. The mechanical and engineering branch continued operations with well-boring in Gujarat, and with trials of oil engines for water-lifting and cane crushing in the Deccan. Agricultural associations increased to 31. The new buildings of the Poona Agricultural College steadily progressed and were partly occupied. The students numbered 110, of whom 36 graduated.

*Eastern Bengal and Assam.*—A second Deputy Director was appointed during the year, but a further increase of staff is required. The raiyats are very conservative, and need advice and the demonstration of new methods. New crops and improved methods have been successfully introduced in the hill tracts, but the chief essential is to awaken interest in the teeming population of the plains. Attempts were made to increase the area under cotton. An Agricultural and Industrial Exhibition was held at Dhubri. There are two Agricultural Associations. Experiments were made at the seven agricultural stations with paddy, sugar-cane, jute, tobacco, potatoes, ground-nut, fodder crops, cotton, fruit trees, and manures. The Fibre Expert was again engaged in studying the races of jute with the view of improving the crop by raising and distributing improved seed. He further investigated the cause and possible prevention of "heart damage" in baled jute. The experimental cultivation of flax, *sann* hemp, and other fibres also received his attention. The Department continued its sericultural operations in three districts. The aim is to produce and sell seed guaranteed pure. Several agricultural shows were held, and bulletins and leaflets were issued. The laboratory at Dacca was completed.

## Civil Veterinary Department.

The Department has made very satisfactory progress, and further work cannot be undertaken without an increase of staff. Pathologists are needed to deal with the growing demands of the College laboratories for teaching and diagnostic work. A larger European staff, as well as a larger and more highly trained native subordinate staff, are greatly required. The total cost of the Department (Imperial and Provincial) was £137,000.

*Horse, Mule, and Donkey Breeding.*—In those districts of the Punjab, Baluchistan, the United Provinces, and Bombay, in which the breeding of equines specially flourishes, the entire control of horse, mule, and donkey breeding has been transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls breeding operations of every sort. Government stallions are allotted only to selected districts, but the stallions provided in the non-selected districts, partly from District Board funds and partly from provincial revenues, aided by grants from the Government of India, are controlled by the Department. Of these, there were on the register, at the end of 1909–10, 71 horses, 105 ponies, and 100 donkey stallions, mostly located in the United Provinces and the Punjab. The district stallions covered 12,487 mares in 1909–10. A paucity of donkey stallions is reported from the Punjab, United Provinces, and N.W. Frontier Province.

*Cattle Breeding.*—Owing on the one hand to the decrease in the grazing areas and on the other to an increase in the more profitable occupation of cultivating crops, there has been a decline in cattle-breeding in most provinces. As regards bovines, veterinary operations are directed towards improvement of the breeds, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were at the end of the year 58 Government bulls and 627 bulls owned by district boards, the great majority of the latter being in the Punjab. There were eight provincial cattle farms, viz., three in Bengal, one in Eastern Bengal and Assam, one in the United Provinces, one in Bombay, and two in the Central Provinces. The most important centre of cattle breeding is the Hissar Government Cattle Farm, in the Punjab. This farm contained 24 herd bulls and 1,217 cows, besides a large number of young stock and cultivation bullocks, and some mules, donkeys, and sheep. The aim is to maintain a herd of 1,200 cows, so as to meet present demands for ordnance bullocks and for bulls required by the districts and at the farm. A large number of cattle fairs and shows were inspected. Prizes are offered out of Imperial and local funds. Attempts are being made at Hissar and in other parts of India to improve the breed of sheep for both mutton and wool. To encourage the breeding of camels substantial prizes are being offered at some of the Punjab fairs.

*Horse and Cattle Disease.*—About two-thirds of the 236 reported cases of glanders were in Bengal. The extension of the Glanders and Farcy Act to all districts in Bengal should aid in the suppression of glanders and other scheduled diseases. Several provinces, and particularly Bombay, the United Provinces, and the Punjab, suffered losses from surra. Only 51 cases of anthrax amongst equines were reported in the whole of India; and of these, 22 occurred in Eastern Bengal and Assam.

Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 287,823, as against 401,139 in 1908–9. The deaths from rinderpest numbered 155,708, a decline of 82,666. More than one-third of these were in Madras, while Eastern Bengal and Assam again suffered severely. But in both provinces there was a great improvement on the previous year. Considerable progress has been made in breaking down the opposition of the people to inoculation, which was performed in 229,000 cases. The reported deaths from anthrax numbered 16,666, of which Madras contributed 11,968. Inoculation was performed in 3,239 cases. There were 39,423 deaths from hæmorrhagic septicæmia, chiefly in the Punjab (18,255 deaths), and 26,403 deaths from foot-and-mouth disease, which was widely prevalent. There were 11,934 cases of black quarter. The sera for inoculation were prepared at the Bacteriological Laboratory, Muktesar. The serum method is growing in popularity, and frequent and large demands for sera have continued in excess of the supply. Considerable progress has been made in the study of camel diseases. A further investigation of the curative treatment of surra has been most successful, 80 per cent. of the cases treated being cured.

*Subordinate Staff.*—The subordinate staff has been reorganised, but the establishment is below the sanctioned strength, as trained men cannot be obtained. Sixty-five veterinary inspectors and 688 veterinary assistants were employed in 1909–10. Of these, 517 assistants visited on tour 83,114 villages and dealt with 450,919 cases. The veterinary hospitals and dispensaries, at which 518,787 animals were treated during the year, numbered 408, an increase of 28 over 1908–9.

*Veterinary Instruction.*—The number of students who graduated in 1909–10 at the four veterinary colleges, viz., the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 137, compared with 160 in 1908–9. There were 516 students under training at the close of the year. The Punjab College has the strongest teaching

staff and the greatest facilities for teaching, and it turns out one-half of the graduates At present the classes are too large, and additions to the buildings are required. The Bengal College trains men for Bengal, Eastern Bengal and Assam, and Burma. The laboratories attached to the colleges were increasingly used. The demand for admission is very great in the Punjab and considerable in Bengal and Madras, but not so good in Bombay. The demand for vernacular trained men as veterinary assistants still continues, and the need for the establishment of a new vernacular college is more than ever apparent. The Government of India have taken over the "Journal of Tropical Veterinary Science" as a departmental publication.

### Imperial Forest Research Institute.

The work of the Institute comprises tuition and research in sylviculture, forest economy, zoology, botany, and chemistry. During 1909–10 investigations were undertaken in connection with working plans, teak reproduction, and forest grasses, while the Forest Economist was engaged in inquiring into the utilisation of many kinds of forest produce, such as woods for railway sleepers, street paving, paper pulp, and pencils and gum-resins. The prospects of establishing a bamboo pulp industry are promising. The Forest Chemist inquired into tannin extracts, the extraction of oil from various oil-seeds, and the preparation of turpentine. At the Imperial Forest College 56 students attended the Rangers' class.

### Archæological Department.

The primary function of the Department is the conservation of monuments of historic and architectural interest under the Ancient Monuments Preservation Act, but exploration is undertaken so far as means and opportunity permit. In the United Provinces over £3,000 was spent in 1909–10 in the conservation of Muhammadan monuments at Fatehpur-Sikri, Agra, &c. Excavations at Bhita were continued. In the Punjab 24 of the more important Buddhist and Brahminical monuments have been declared "protected." In the North-West Frontier Province excavations at Shahji-ki Dheri in 1908–9 brought to light the great stupa (286 feet in diameter) of King Kanishka, which was found to enshrine a reliquary containing relics of the Buddha. In 1909–10 these relics were presented to a deputation of Burmese Buddhists and enshrined at Mandalay. In Burma action was taken to conserve further buildings in Mandalay and pagodas at Pagan. In Bombay Presidency a fine Buddhist *stupa* containing relics was excavated at Mirpur-Khas in Sind. Among the monuments in other parts of British India that were the subject of special attention, the most prominent were the following:—In Bombay Presidency, buildings at Ahmedabad, Bijapur, Champaner, Broach, and the Elephanta Caves; in Madras, Buddhist monastic remains at Ramathirtham; and in the Punjab, temples at Baijnath in Kangra and Jagatsukh in Kulu.

### Medical Research Institutes.

In 1907 the bacteriological laboratories in India were placed on a definite footing, and the Bacteriological Department now comprises 12 appointments distributed among the institutions named below. At the Central Research Institute, Kasauli, the staff during 1909 conducted investigations into dysentery at Bombay, malaria in the Punjab, and other subjects, and published reports of the results. Short courses of instruction in clinical bacteriology and technique were given to 32 officers of the Indian Medical Service. The demand for curative sera and vaccines continued to increase. The Bombay Bacteriological Laboratory was, as usual, utilised for the work of the Plague Research Commission. Much work was done in connection with plague vaccines, which are prepared here for the whole of India, with disinfectants for killing fleas, and with poisons and other methods for destroying rats. During 1909 over 593,000 doses of anti-plague vaccine were issued. The staff of 111 persons, who are annually inoculated, escape plague infection. About 91,500 rats were examined for the Bombay Health Officer, and 9,600 were found to be infected with plague. Practical instruction in plague diagnosis and inoculation was given. A great deal of bacteriological work was done. At the King Institute of Preventive Medicine, Madras, much chemical and bacteriological work was carried out. Inquiries were continued regarding the town water supplies of Madras Presidency. Two memoirs or pamphlets bearing on medical research were issued in 1908.

# CHAPTER XIV.

## EDUCATION, LITERATURE AND THE PRESS.

*(For further details see Statistical Abstract for British India, Tables 105 to 116.)*

### EDUCATION.

*General.*—Educational institutions in India are of two classes :—

(1) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(i) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(ii) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering, and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903–4.

*Madras.*—In the Madras Presidency steady progress was made during the year 1909–10. The total expenditure, direct and indirect, on education amounted to £795,950, the highest figure that has yet been attained in any one year. There was a further advance in the total number both of schools and of scholars. There were 1,179,048 scholars in all, or 79,433 more than in the previous year, an increase of over 7 per cent. The percentage of boys and girls under instruction to those of school-going age rose to 34·7 and 6·8 respectively. All classes of schools, both under public and private management, contributed to the increase. 136,407 boys and 16,160 girls were studying English at the close of the year. Of the classical languages Arabic maintained its position as the most popular; fewer pupils took up Sanskrit. The important changes in the arrangements for inspection mentioned in the last report, and in particular the provision of a separate assistant inspector for each district, enabled far more thorough control of the subordinate inspecting agency to be maintained. The staff of supervisors, whose pay was accepted as a charge upon provincial revenues last year, worked well. Elementary schools were kept under closer supervision, each receiving on an average four visits a year. Judged by statistics, elementary education may be considered to have made satisfactory progress during the year. Public elementary schools for boys rose in number to 23,260 (an increase of 712), and in attendance to 854,137 (an increase of 63,500 scholars). Improvement both in the number and the qualifications of the teachers is reported; 31,321 out of the 36,433 teachers employed in elementary schools held

certificates. Most of the inspectors are able to report that their efforts to introduce the new scheme of studies met with a measure of success, at any rate as regards the compulsory subjects, but there is still ample room for improvement in the quality of the instruction given. Municipal councils and local boards have been urged to take as many as possible of these elementary schools under their management. The question of opening elementary schools in villages where there are none is receiving attention, and Government will consider measures for assisting financially such district and taluk boards as cannot provide funds for the purpose. Reclassification of schools accounts for a slight decline in the number of secondary schools, but the figures of attendance in them rose from 95,765 to 101,082. A reform of the first importance, marking a new era in the history of secondary education in the Presidency, is the introduction of the new system of school-leaving certificates. This is an attempt to give a more practical turn to secondary education, and to remove the reproach that the teaching in secondary schools is little more than a system of cramming students for matriculation. The new scheme embraces a wider range of subjects than the Matriculation Examination of the local University, and guarantees not merely that a pupil has passed a certain literary test, but also that he has gone through a definite course of study, in a recognised secondary school, and, further, that his conduct has been satisfactory; school work done by the pupil from the fourth form upwards is taken into account, as well as the result of a public examination held at the end of the course. Students holding the completed school-leaving certificate will be eligible to proceed to the University intermediate course of study in an affiliated College; they will also be eligible for superior Government appointments. In the Arts Colleges, now numbering 31, some improvement was effected to meet the requirements of the new University regulations in respect of accommodation, construction of laboratories, and the supply of books, and 4 additional appointments in the Indian Educational Service, 3 in the Provincial Service, and 7 in the Subordinate Service have been created. There were no serious cases of breach of discipline in the Colleges. The University received a special grant of £1,000 from Government funds towards the expenses of a Committee appointed to inspect affiliated Colleges. What may be called the professional institutions, viz., the Law, Medical, and Engineering Colleges, and the Training Schools for Masters, maintained their efficiency. Female education is still confined almost wholly to the elementary stage, but with this limitation a further advance was made, the number of girls under instruction being now 193,350; more than half of these were at mixed schools; 5,242 girls were in secondary schools, and 32 in Colleges. Additional facilities were provided for Muhammadans; the number of institutions intended specially for them rose from 2,049 to 2,147, with 97,287 pupils, as against 87,025 the previous year. European education calls for no special comment; the numbers remained nearly stationary. The total expenditure on education was provided as follows:—From Provincial funds (in round figures) £275,300; local funds, £62,170; municipal funds, £20,450; fees, £232,600; other sources (including subscriptions, endowments, and the like), £205,430.

*Bombay.*—In the Bombay Presidency the year was marked by progress in all branches of educational work. Especially satisfactory is the extension of primary education. The total number of institutions has increased from 14,589 to 15,432, and the total number of scholars from 792,559 to 850,293. In public institutions, *i.e.*, those under Government inspection, the number of male pupils rose from 607,537 to 653,704, and the number of female pupils from 108,176 to 116,731. The percentage of pupils under instruction to the general population was the highest yet recorded. As regards University examinations, the most noteworthy feature is the disproportion between the number of those appearing for the Arts degree and those of candidates for the Science degree; while 500 candidates were examined for the degree of B.A., only 17 sought the degree of B.Sc.; out of these, 331 and 14, respectively, were successful. When the plans at present under consideration for the improvement of Science teaching have been matured, more students will no doubt present themselves for examination in Science subjects. Important proposals for the revision of the University curricula were under discussion throughout the year, but no settlement has yet been arrived at. The total number of Arts Colleges remained the same, viz., 11, but the number of students continued to rise; there are now 3,034 in the Arts Colleges and 1,162 in the four Professional Colleges. As indicating the extent to which Government is interested in higher education in the Presidency it may be mentioned that 74 per cent. of the expenditure on affiliated Arts Colleges

and 98 per cent. of that on Professional Colleges is borne by Government. In secondary schools, also, the figures show an increase, the number of such institutions at work being 548, with 70,000 scholars, including more than 6,000 girls. As regards discipline, an improvement is reported; the issue of a Government Resolution on this subject (30th September 1908) appears to have had a beneficial effect; the year was not marked by any open displays of insubordination or disorderly conduct on the part of pupils in schools of this class.

In the field of primary education the great events of the year were the opening of 573 new schools, from a special grant of £7,600, and the improvements made in the pay of the teachers from a special grant of £9,600. The minimum pay of assistants had already been raised to Rs. 9; with the new grant it has been possible, among other concessions, to give those of five years' standing Rs. 10; to raise the minimum pay of trained headmasters to Rs. 12, and that of trained assistants to Rs. 11. These improvements have been hailed with joy, and it is hoped that means will be found before long to carry them still further. On the question of fees it is reported that, if full effect is given to the existing rules as to remission, the probability of any boys being prevented from attending school by inability to pay fees becomes very slight. The concessions now made in favour of the poor and backward classes are such that the increase in attendance resulting from the abolition of fees would probably be comparatively small and out of all proportion to the cost of recompensing District and Municipal Boards and the managers of private institutions for their loss. As regards female education, the figures for 1909–10 show the substantial increase of 8,278 in the attendance of girls in primary schools, the total for the whole Presidency being now nearly 110,000. Among Muhammadans increasing advantage is being taken of the facilities for education. There were 125,110 Muhammadan pupils under public instruction during the year under report, as against 114,762 in the previous year. The total expenditure on education in the Presidency rose from £786,870 in 1908–9 to £823,480 in 1909–10. More than one half of the increase was devoted to primary education.

*United Provinces.*—On the whole the record for the year under report was disappointing in the United Provinces. In spite of the strenuous efforts recently made to popularise elementary education in towns and villages, there was in 1909–10 a decrease of 460 in the total number of institutions, and of nearly 11,000 in the number of scholars. The decrease is common to both public and private institutions, the total number of scholars on the rolls at the close of the year being returned as 647,581. The falling-off is not attributable to curtailment of the amount spent, for the total expenditure, direct and indirect, on education from all sources amounted to £621,508, *i.e.*, about £58,000 more than in 1908–9 and £130,000 more than it was two years ago. Reasons for the apparent set-back are discussed in detail by the Director of Public Instruction. Previous to the last two years, he explains, there was a period of extension, during which all efforts were concentrated on increasing the number of schools and swelling the enrolment. The result was that schools were sometimes opened on too easy terms and without due regard to the areas which they would serve. There was, in fact, a good deal of educational jerry-building, and some local boards, in their desire to multiply the number of scholars, indulged in reckless expenditure. Now, nearly all boards have found it necessary to make a careful review of their resources and to cut down unprofitable expenditure, and there has been a fairly general process of weeding out of schools which, on a close examination, were found to be serving no very useful purpose. Another reason for the falling off in scholars is that stricter administration has operated to reduce the enrolment; fictitious entries in the registers have been expunged and habitual absentees have been struck off with greater vigilance and punctuality. It is further to be noted that the decline was not uniform throughout the province; a sudden shrinkage in the Benares division accounts for two-thirds of the total. The average of attendance showed marked improvement, rising in the Meerut division, for instance, from 71·3 to 77 per cent. As regards the higher education, the Allahabad University is now well on the way to possess suitable buildings of its own. The foundation-stone of the Senate Hall was laid during the year by the Lieutenant-Governor, and designs have also been approved for the University College and Library. The number of Arts Colleges remains the same, 31 for men and 4 for women, but in several important institutions, including Queen's College, Benares, the Muir Central College and the Christian College, Allahabad, the Canning College, and the Agra College, the staff has been strengthened. Much has also been done for the accommodation and equipment of colleges, especially on the science side. The number of

students rose by more than 5½ per cent., the bulk of the increase having taken place in aided colleges. There are now more than twice as many college students as in 1902. Oriental colleges rose in number from 7 to 13. The system of residential hostels continues to extend, the total number of college students who were boarders having increased from 1,296 to 1,378 during the year. In secondary education the number of scholars has increased; their attainments, however, leave much to be desired; the matriculation results were extremely bad, no less than 72 per cent. of the candidates having failed. In the examination for the school-leaving certificate, which was held for the first time during the year, more promising results were attained, 42 per cent. of the candidates being successful. In primary schools there were 443,000 pupils, as compared with 461,000 at the close of the previous year. The total direct expenditure on schools for Indian boys now stands at £101,330; a larger amount has been spent proportionately on each school, better salaries being paid, and more masters employed relatively to the number of pupils. Some progress in the supply of trained teachers is reported. There are now two training colleges for masters for native schools, as well as 6 normal schools and 106 training classes. In training institutions for native schoolmistresses the number rose from 217 to 281, and the work of the Government Female Normal School, Lucknow, and the Isabella Thoburn College is singled out for special mention. In female education, generally, there is little progress to record; the number of institutions rose, it is true, but the number of scholars on the rolls fell from 49,478 to 46,188. The decrease is due mainly to the exodus of girls from boys' schools: Indian parents do not, as a rule, take kindly to the idea of educating boys and girls together. Education of Europeans and Eurasians calls for no special comment. In the field of technical and industrial education good progress has been made; the carpentry school at Bareilly, the industrial school at Gorakhpur, the Weaving Station at Benares have been completed and equipped; the School of Design at Lucknow has also been completed, and among purely industrial institutions the Hewett Weaving School at Bara Banki has met with much success. A post of Director of Industrial Enquiries and Inspector of Industrial Schools has also been created. The total expenditure on education rose during the year from £563,495 to £621,508.

*Punjab.*—Judged by numerical tests the year has been one of unusual development in the Punjab. In practically all classes of institutions the numbers of pupils increased, the total increase being 19,855 males and 7,035 females. Hindus (including Sikhs) increased by 8·6 per cent. and Muhammadans by 8·1 per cent. The total number of scholars now stands at 329,466, representing 17·39 per cent. of the boys and 3·12 per cent. of the girls of school-going age. Agriculturists' children number 49·5 per cent. of the total in attendance at primary schools, and 24·6 per cent. of those in attendance at secondary schools. Expenditure on public institutions has increased by £18,940, or about 5 per cent., more than half of the increase coming from fees and other private sources. The Provincial Government contributed nearly £6,600 more than in the preceding year, and municipal expenditure on education has increased by 12 per cent. District Boards, on the other hand, spent a slightly smaller proportion of their funds on education. In the previous year some boards had forced the pace, and had started schools not only in advance of the demand but also without sufficient regard to their financial position. Primary education is already free for sons of agriculturists and for a number of other boys of the poorer classes, and it is held that the pressing need of the time is for better schools rather than for cheaper schools. The difficulty of recruiting good material for the teaching profession is being felt more acutely, and improvement of the staffs and of the school buildings, which are too often overcrowded, has not kept pace with the demand for education as shown in the growth of school attendance. "In education," writes the Director of Public Instruction, "it is "quality rather than quantity that matters, and here it is to be feared that there are "few signs of progress, owing to want of funds for buildings and teachers." As regards the important question of abolishing fees in primary schools, the number of children of school-going age in the province may be taken, roughly, as three millions, and if free and universal primary education were introduced it is calculated that the direct cost to the country would be at least £533,330, and with a consequential increase of normal schools and of the inspecting agency, might be expected to amount ultimately to a crore of rupees (£666,670). With the province in its present stage of development, it is unlikely that so large a sum could be raised by additional taxes without causing severe hardship and creating serious discontent. The conclusion of the Local Government, in their review of the year's report, is that the scheme for abolishing fees in primary schools was conceived in misapprehension of the true needs

of the situation in India, and in a mistaken belief in the analogy of that situation with the conditions prevailing in countries where compulsory education has been introduced. Collegiate education in the province is on a high level, and with stricter University control the standard of education in the affiliated colleges is steadily rising. Special efforts are being made to regulate examinations so as to exclude from college classes the unfit, whose presence acts as a drag upon the progress of the majority. There were 10 Arts colleges in all, as last year; the number of students in them rose from 1,860 to 2,022. Progress during the year has been greatest not in primary schools but in the secondary stage. The year's increase in pupils in high and middle schools is 14·2 per cent., as compared with an increase of 5·7 per cent. in primary schools. The total number of secondary schools for boys rose from 296 to 304, and the number of pupils rose by 10,182 to 71,784. Fees increased by £5,370, and defrayed 42 per cent. of the expenditure on this branch of education. The number of elementary schools conforming to departmental standards fell from 3,408 to 3,345; the closing of schools, however, has not prejudicially affected the attendance as a whole, the total number of pupils having risen by 8,506 to 158,312, whereas in 1908–9, when 76 new board schools were opened, the increase of pupils amounted only to 3,516. The supply of competent teachers still falls far short of the demand; out of 4,188 teachers employed in board primary schools, only 2,423 were trained men, and in aided schools trained teachers are rarely found. The fact is that the teachers' remuneration, though it is gradually advancing, has not yet reached the stage of attracting competition. The number of training institutions remains the same, the principal ones being the Central Training College, Lahore, six normal schools (including one for women), and the Sanawar class for European teachers. The statistics as to the education of Europeans call for no special remark. As regards female education, although the number of schools remained the same, there was a notable advance (15 per cent.) in the number of girl pupils. Especially satisfactory was the increase in the number of Muhammadan boys at public institutions; in the previous year it had risen by 2,396 to 89,564; in the year under review there was a further rise by 8,320 to 97,884. The percentage of boys of school-going age attending public institutions is now 11·3 for Muhammadans, 17·7 for Hindus, and 23·3 for Sikhs. The total expenditure on education in the province was £389,560.

*Central Provinces and Berar.*—The general conditions of the year in the Central Provinces and Berar were more favourable to the progress of education. In several important centres, notably Nagpur and Jubbulpore, plague interrupted the cold-weather session, seriously affecting the examination results; in other respects steady improvement is reported. Much of the activity in educational matters cannot, however, be accurately gauged at present, as it was devoted to a considerable extent to the discussion of schemes of far-reaching reforms, such as the improvement of secondary education; but among the important changes actually introduced during the year may be mentioned the revision of the curricula for middle and primary boys' schools, the initiation of a school-leaving certificate examination, the opening of a Government High School for Muhammadans at Amraoti, and the formulation of rules for grants-in-aid by local bodies to boys' primary schools in Berar. The question of moral and religious instruction in schools has also been under consideration. The number of pupils in all classes of institutions has for some years past been rising at a steady rate. There are now 3,793 schools and colleges, including those in Feudatory States, and 296,305 students, as compared with 3,651 institutions and 276,700 students in the previous year. The most noteworthy point is the increase of pupils in the secondary schools, viz., 2,651, and of public primary schools (125) and pupils (13,983), 32 additional schools and 3,300 additional pupils being credited to Berar. The number of students in Arts colleges rose from 457 to 479. Work in the colleges was much hampered by serious outbreaks of plague; 423 candidates entered for the University examinations and of these 187 were successful; of the latter no less than 121 were Brahmans. A far better tone prevailed in all colleges, and discipline was well maintained. The improvement is attributable in part to the system of residential hostels or boarding-houses. At Jubbulpore College the number of boarders rose from 74 to 82; in the Hislop College the hostels have been crowded and are almost self-supporting; in the Morris College a resident superintendent and a medical officer have been appointed, and the behaviour of the students is reported to be steadily improving. The Victoria College of Science secured affiliation up to the M.Sc. standard. The number of secondary schools in British districts rose to 389 for boys and to 39 for girls, with 50,536 and 2,309 pupils

respectively. The continued substantial increase in the number of boys in secondary schools is a striking indication of the widespread demand for English education, and further satisfactory features are the readiness with which money has been subscribed for the erection of hostels in connection with high schools and the establishment at private expense of a large number of scholarships tenable by poor boys in the new Muhammadan High School. The University Matriculation results were deplorably bad, only 95 passing out of 260 candidates. The high percentage of failures is attributed partly to the frequent interruption of school sessions in late years by plague, partly to overcowding of schools, especially in the larger towns, and lastly to the small proportion of certificated teachers. To remedy this last defect a regular training college, with a well paid staff of masters, has been set up at Jubbulpore. In regard to primary education the enthusiasm is not so keen, but it is growing, and though there are still many villages in the more backward districts where a good number of inhabitants would not be sorry if the village school disappeared, there is increasing evidence in rural tracts of a demand for schools which is larger than district councils and boards can meet. A scheme has recently been sanctioned which, it is hoped, will enable local bodies to open schools wherever they are wanted. The same steady increase in the number of scholars under instruction in primary schools occurred this year as in several preceding years; in particular the number of scholars of the Mahar and other low castes is advancing, though slowly. An interesting experiment has been tried in Nimar with a view to widening the area served by schools, feeder classes being established at private expense in villages situated too far from a primary school to admit of the attendance of small children; children thus attend the infant and first standard classes close at hand, and when they are of an age to walk two or three miles to school they join the second standard in the nearest primary school. Female education showed a slight advance, a noticeable feature being the increased number of girls in boys' schools; but even the most elementary education of girls is still terribly hampered by social custom. In all the number of girls' schools rose from 303 to 320, and of girl scholars from 16,576 to 17,526. The year was an eventful one in the annals of Muhammadan education in these provinces; the opening of the Government High School at Amraoti has already been mentioned; a separate Muhammadan normal school has been established, and an Urdu class is to be attached to the new normal school at Chandwa. The total expenditure on education, which for some years past has been showing a large annual increase, was slightly less than in 1908-9 and amounted to £185,040. The contribution from provincial and imperial revenues, however, rose to £72,780.

*Burma.*—The educational record of the province during the year was on the whole uneventful, and is aptly illustrated by the slight increase in the total number of pupils under instruction from 433,211 to 433,973. A reassuring measure of progress was secured in higher education, which was counterbalanced by a slight retrogression in respect of technical institutions and primary schools. The number of students enrolled at the two Arts colleges rose from 155 to 244, the highest figure yet attained; pending the solution of the standing problem of the establishment of an independent university for Burma, creditable results were achieved in the examinations held under the auspices of the Calcutta University. The popularity of athletics showed no diminution, and conduct was on the whole good. The number of secondary schools rose from 746 to 831, and of scholars from 67,830 to 74,547; an encouraging increase occurred in the attendance in the Middle Stage of Anglo-Vernacular schools. In the number of pupils receiving primary education a decline of about 7,000 is reported, some portion of which is accounted for by the raising of various Anglo-Vernacular schools from the primary to the middle grade; the greater part of the loss may perhaps be attributed to the fact that a large number of pupils passed over from the registered to the unregistered Vernacular schools. Private institutions of the latter class rose in number from 16,236 to 16,403, owing probably to the difficulty experienced by managers in meeting the requirements of the Education Department. There was a decrease of 409 in the total of girls under instruction, chiefly confined to the lower grades of female education; in Arts colleges the number rose from 7 to 12, and an increase is also recorded in the number of girl students in training schools. The number of European schools increased from 24 to 27, and the attendance in them from 3,135 to 3,222. The number of Muhammadans under instruction also rose by 1,198, and now stands at 12,981. There was an expansion, restricted chiefly to private institutions, in both schools and scholars belonging to the "special classes."

The total expenditure on education during the year increased from £262,120 to £284,734. Among the more important educational events may be reckoned the abolition of the itinerant teachers, the formation of governing bodies for High Schools taking the Matriculation of the Calcutta University, and the sanctioning of proposals for religious instruction in schools under public management.

*North-West Frontier Province.*—In the North-West Frontier Province the year was one of satisfactory progress. The number of primary schools rose by 13, and that of secondary schools by 2; and the number of scholars showed an increase in nearly all public institutions for general education. The figures were 21,462, as compared with 19,235 in the previous year. There was a noteworthy decrease of 57 in the number of private schools, and of 873 in that of their pupils; the decline may be attributed to the expansion of public primary schools and the growing demand for a sound and methodical school education. The total number under instruction, in public and private institutions combined, is returned as 30,045, against 28,891 for the preceding year. The one Arts college in the province, the second-grade Mission College at Peshawar, contained 19 students, a decrease of 3 on the previous year; the scheme for the opening of an Islamic College, which was under careful consideration, appears to command the hearty support of the public. Progress in secondary education is pronounced to have been eminently satisfactory; in primary schools, despite the decline in indigenous unaided schools, there was an increase of 1,473 in the number of pupils, and the percentage of boys of school-going age rose from 8·7 to 9·5. The number of girls under instruction increased from 3,151 to 3,456, and there were clear signs of a growing appreciation of the benefits of female education in the province. The Normal School at Peshawar succeeded in passing 25 out of 27 candidates for the Vernacular certificate; the number of students rose from 51 to 54, but the relative unattractiveness of the teaching profession militated against full advantage being taken of the opportunities offered by the school. The total expenditure of the year amounted to £20,306.

*Coorg.*—Expenditure on education in Coorg increased by £521 during the year, and the numbers attending public institutions rose from 5,316 to 5,731. Attendance in primary schools increased by 398. The percentage of pupils under instruction to those of school-going age was 14·17, as compared with 12·95 in the previous year. The educational institutions in the province were one training school, one upper secondary school (High School), and one lower secondary girls' school—newly started—at Mercara, one lower secondary school at Virajendrapet, and 87 primary schools. The number of pupils at the 28 private elementary schools rose from 476 to 604; in one of these institutions instruction in Sanskrit was added to the ordinary curriculum. There were one secondary and five primary schools exclusively appropriated to girls; the total number of girls under instruction rose from 1,554 to 1,758. The system of village school committees, or *panchayats*, was retained during the year.

*Bengal.*—Activity in educational matters was fully maintained during the year under review. The total expenditure from all sources rose from £963,330 to £1,005,912. Since 1905–6 the expenditure from provincial revenues has increased from £226,660 to £332,864. The number of boys under instruction was approximately 1,300,000, representing 33·2 per cent. of the total male population of school-going age. Primary schools for boys numbered 35,201, or 729 more than in the previous year. Efforts were made to improve the standard of teaching by bringing the training schools for Vernacular masters into contact with the training colleges in Calcutta and Patna. Of the 202 *guru*-training schools sanctioned under Government, 199 were open during the year. It is stated that while 1,182 *gurus* left the schools during the year with certificates of proficiency, the number of *gurus* actually employed in schools of all classes increased by 585 only—an unsatisfactory state of affairs for which the unremunerative character of the *guru's* work appears to be responsible. Expenditure on secondary education increased by £6,814, and the number of pupils in High Schools by over 4,000. A growing appreciation of the direct method of teaching English was manifested, for which credit is due to the Training Colleges for Indian Teachers. In collegiate education there was a remarkable increase in the number of students from 4,655 to 7,154, as a result of the very high percentage of success at the previous Entrance examination of the University of Calcutta. An imperial grant, the greater part of which was devoted on the advice of the University to the improvement of laboratories, was received for expenditure on private colleges. Eight additional appointments were sanctioned in the Indian Educational Service;

proposals for improving the prospects, both of this and of the Provincial Educational Service, were under consideration. By the end of the year, every Government College was under the control of a separate Governing Body. An increase of nearly 15,000 in the number of Muhammadans under instruction is reported; a new scheme of studies, embracing an 11-year course, was introduced during the year in the Calcutta and Hooghli Madrasas. As regards female education, there were 144,510 girls under instruction in primary schools, 149 at the collegiate school, and 35 at the Bethune College. The Diocesan Girls' School at Calcutta was returned as an Arts College during the year, this being now the second Female Arts College in the province. Government assumed the direct management of all the model primary girls' schools; 21 lower primary schools for peasant girls were established in the Presidency Division, and it is now proposed to start a few schools on similar lines for the exclusive benefit of Muhammadan girls. The most serious obstacles to the progress of female education continue to be the want of female teachers and the general indifference of the public. On European education £8,215 less was spent than in 1908–09, owing chiefly to a falling-off in the income from subscriptions and endowments. Under the revised code now adopted for European schools, four grades of schools are to be recognised, Elementary, Higher Elementary, Secondary, and Higher Secondary, opportunity being given to managers to raise the standard of efficiency in their schools so as to meet the requirements of the secondary grade. As regards professional education, the University Law College in Calcutta and the Patna Law College were opened during the year under review. The Government Weaving Institute at Serampore, started in January 1909, appears to be attracting working weavers. The number of hostels in the province increased from 445 to 534, and the number of inmates from 13,131 to 15,644; physical exercise and games are said to be growing steadily in popular favour, and some improvement in general discipline is noticed.

*Eastern Bengal and Assam.*—The Education Department was occupied during the year in advancing the schemes which have been framed for the improvement of all branches of education in Eastern Bengal and Assam, and no extensive development in policy took place. The total number of public institutions declined from 23,933 to 23,340, the decrease being practically confined to primary schools; but the number of pupils rose to 907,509, an increase of 3,736. The proportion of scholars to children of school-going age now stands as follows:—Boys, 35·09 per cent.; girls, 5·72 per cent. The total expenditure on public education fell from £442,290 to £439,601. With regard to collegiate education, the number of institutions remained at 11, of which five were of the first grade. Considerable progress was made with the improvement of college buildings and equipment; and the number of students rose from 1,329 to 2,034. An important development was the establishment of a Muhammadan hall for college students at Dacca. The number of secondary schools remained at 1,205; the number of pupils in them rose from 132,151 to 140,985. The principal features of the year were the introduction of the new curriculum for English schools and the special inspection of middle schools, from which beneficial results are expected. The total number of pupils in High Schools was 56,982, an increase of 9·7 per cent. on the previous year, 40 per cent. of the increase being accounted for by Muhammadans. The number of primary schools for boys is reported to have decreased from 18,041 to 17,325, and that of pupils from 663,819 to 650,564; the reasons assigned for the decline are the system of concentration of grants pursued by the boards, and the correction of the figures of increase returned for the previous year, particularly in regard to schools of the *Maktab* type. The proportion of trained teachers in boys' schools in the province rose slightly from 13·4 to 14·1 per cent.; the ratio is sufficient to indicate the magnitude of the work still to be accomplished. With regard to female education, the number of girls' schools rose from 4,121 to 4,231, and that of their pupils from 86,644 to 92,404; of the total number (122,173) of women and girls under instruction, 48·1 per cent. were Muhammadans. A satisfactory feature of the year was the cessation of political agitation in schools, and a consequent improvement in general discipline. The encouragement of physical training and games was maintained with good results. The number of hostels for students increased from 214 to 269; capital expenditure from Government funds on hostel construction amounted to £3,467, and some assistance in this important field of educational activity was derived from private co-operation.

## LITERATURE AND THE PRESS.

*Bombay.*—In Bombay 2,073 publications were registered, as compared with 1,676 in the previous year. The total increase is made up chiefly of an increase of 202 under the heading Miscellaneous and 100 under Poetry. In Arts the number has risen from 66 to 85; in Biography from 21 to 33; in Drama from 39 to 50; in Fiction from 56 to 74; in Politics from 20 to 31; in Science (mathematical) from 9 to 23. History, Language, and Medicine show slight increases, whilst the numbers under Law, Philosophy, Religion, and Natural Science have fallen. Books published in English numbered 113; noteworthy among them were *English Impressions*, an excellent series of notes on certain aspects of English life, by N. G. Welinkar; a translation of *Merope*, by E. R. Sahiar; and a useful compendium entitled *The Emporium of Commercial Training*, by K. N. Banarji. Among books in Gujarati may be mentioned *Achara-darsana*, by V. K. D. Shyama Dhruva, a drama depicting the struggle between orthodoxy and reform in Hindu social and domestic life; and *Zoroastrian Lectures and Sermons*, by J. J. Modi. 333 books were published in Marathi, including an admirable life and appreciation of Moropant, by L. R. Pangarkar, B.A. Two Shakespearian adaptations appeared in Marathi drama, one—the more creditable production—being based on *The Merchant of Venice*, the other on *Romeo and Juliet*. A commendable example of indigenous drama is *Maharana Pratapsinh*, a play full of heroic incidents relating to the stubborn resistance offered by Pratap to Akbar. Marathi fiction is represented by twelve works, among which *Jeevanasandhya*, a historical romance also dealing with the conflict between Akbar and Pratapsinh, has a high degree of merit.

Other Marathi works that call for remark are a well-written adaptation of *Women's Worth and Work*, by S. D. Deshmukh, and a beautiful elegy entitled *The Tears of a Father*, by N. W. Tilak, a modern poet of some note. The only Marathi contribution to science was a well-arranged volume by B. G. Deshpande, describing the work of the Forest Department. Political treatises in Marathi were for the most part devoted to the advocacy of extreme views.

As regards newspapers, there was, on the whole, a marked decrease in the circulation of extremist organs. The number of newspapers and periodicals treating of current political topics fell from 178 to 173; of these 80 were conducted by Brahmins, 46 by other Hindus, 22 by Parsis, 12 by Muhammadans, and 13 by Christians. During the year the editors of the *Kal* and the *Pratod* were convicted and sentenced for sedition, and proceedings were taken against the *Hindu Punch* which resulted in the confiscation of the press at which the paper was published.

*Madras.*—In Madras the literary activity of the previous year was fully maintained. The number of books and periodicals published was 2,740, as compared with 2,207 in 1908–9; the increase is marked, though it may be due to some extent, as in 1908, to a more strict enforcement of the rules regarding registration. Religion continues to be the dominating force in indigenous literature; it was the subject of 971 works. Of the rest, 254 related to law, and 234 to languages, while 177 works were classed as poetry and 79 as drama. On politics there were only 7 publications, and on history 41. Among individual works may be mentioned *Messages of Uplift for India*, by Saint Nihal Singh, containing interesting comparisons between Indian ideals and those of America and Japan; *The Message of the East*, a tract on the influence of Indian art, by Dr. A. K. Coomaraswami; and a close translation in Telegu of Mill's Essay on Liberty. *The Twentieth Century Tamil Dictionary* is a useful compilation. As regards newspapers, the chief topics of interest were the passing of the Reform Scheme through Parliament, the treatment of Indians in South Africa, and the recommendations of the Royal Commission on Decentralisation. The anarchist outrages that occurred during the year were made the object of the severest condemnation.

*United Provinces.*—The total number of publications registered in the United Provinces rose from 1,433 to 1,988, the increase being shared by almost every branch of literature, although there was a proportionate falling off under the head of religion, due in part to a satisfactory decline in religious polemics. There was a dearth of Islamic literature during the year, which is attributed to the expenditure of Muhammadan energy in other directions; Arya Samajists continued to carry on a vigorous literary campaign. The historical work of the year was of little or no interest; among biographies may be mentioned an excellent edition of the *Bhaktamala* of Nabhadas Swami on the Vaishnavite saints, composed in the seventeenth century.

Some notable reprints of texts and commentaries appeared during the year, the most important of which were the original Sanskrit text of the *Yájnavalkya Smirti* and the opening number of a series entitled "The 108 Upanishads." Books in verse rose in number from 403 to 519, but the increase was not accompanied by any improvement in quality, and was chiefly marked by a preponderance of erotic interest, which equally pervades the bulk of the novels published during the year and not infrequently degenerates into an ultra-Gallic lubricity. The standard of dramatic works continued low. Two legal publications deserve mention: Raj Kishore's *Index of Cases Judicially Noted* is a work of merit, while C. D. Banerji's *Commentary on the Provincial Insolvency Act* is the first contribution to that branch of law from these provinces. The number of newspapers and periodicals rose from 114 to 123; the general tone of the press showed considerable improvement. It was found necessary to institute proceedings under section 124A of the Indian Penal Code against the editor of the *Swarajya*.

*Punjab.*—The number of publications received for registration in the Punjab rose from 1,185 to 1,191. The number of books on religious subjects was outstripped by that of poetical works, which rose from 292 to 332; the quality of the latter was poor, but their tone was for the most part unobjectionable. Of political biographies, *Guru Gobind Singh*, by Lachhman Singh, and an Urdu reprint of Lajpat Rai's *Shivaji*, are productions of some merit; it is satisfactory to note that the number of biographical works is increasing yearly. There was a decided improvement in the standard of the novel during the year, although the translations of European novels were few in number. An adaptation of one of Tolstoy's works by Chandu Lal may be mentioned. Historical romances maintained their popularity. In Art a noteworthy achievement is Pandit Vishnu Digambar's Hindi work entitled *Naradiya Shiksha*, an orthography of sound of considerable value to students of Hindu music, in which there are signs of a revival. Newspapers numbered 265, of which 24 were published in English and 206 in Urdu. Proceedings under the Newspapers (Incitement of Offences) Act had to be taken against one newspaper, the *Tilak*, of Hoshiárpur; and the editors of the *Peshwa*, the *Sahaik*, the *Bedari*, and the *Akash* were prosecuted under section 124A of the Indian Penal Code.

*Burma.*—Out of 246 books published during the year in Burma, 121 were devoted to religious subjects. Ledi Sayadaw was again prominent as an able expounder of Buddhistic teaching. Only three poetical works appeared during the year, of which *Muslim Chivalry*, by Y. Parkinson, is a work of more than ordinary merit. Some useful exploration in the fields of Shan folklore was accomplished by the Rev. C. B. Antisdel and the Rev. Ba Te. There were two examples of original fiction, both of a disappointing character. Owing to a more careful system of classification, the number of dramatic works showed a decrease from 68 to 19; this class of literature, however, appears to constitute the most popular form of reading among the present-day Burmans, and it is to be regretted that its standard is by no means high. There were 44 newspapers published, of which 24 were in English and 20 in the Vernacular.

*Bengal.*—The increase in the literary output of Bengal was maintained during the year under review, 3,837 publications having been registered, as compared with 3,417 in 1908 and 2,995 in 1907. Of these publications 2,655 were books, 2,187 being original works and 468 re-publications or translations. Biographies of the first class were chiefly concerned with the leaders of the social and religious movements which have passed over the country since the twelfth century of the Christian era. In history a mass of indigenous material hitherto unused was laid under contribution by the new spirit of research. A second part of the *Bhásá Tattva*, by Srinath Sen, dealing with the philology of the Bengali language, was produced during the year. In poetry, a noteworthy edition of *The Love Poems of Vidyapati*, published under the auspices of the Sahitya Parisad of Calcutta, may be mentioned, besides a number of collections of Bengali lyrics of average merit. A feature of the year was the increase in the number of publications dealing with questions of caste.

Religious works, dealing with every variety of religion and written in nearly every vernacular found in the province, constituted as usual the bulk of the year's literature. Except for Government publications, scientific activity was concerned less with the science of the West than with that of the ancient Hindus. Two works on Art deserve notice: *Bhárat Silpa*, a treatise advocating a revival of classical Indian art, and *Sangit Chandrika*, a work on Hindu music. Among dramatic productions may be mentioned *Sásti ki Sánti*—Punishment or Peace—a social drama dealing with the Hindu widow

re-marriage question, and an adaptation of *Measure for Measure*, besides various historical and religious dramas of some interest. In fiction, the continued demand for stories of a sensational description has reacted unfavourably upon the standard of the general output; but *Gorá*, a serial novel of unusual length, contains a subtle analysis of the present condition of the country. Among the chief topics discussed in the press during the year were the Press Act, the condition of Indians in South Africa, the relations between the police and the people, and the treatment of under-trial "political" prisoners.

*Eastern Bengal and Assam.*—In Eastern Bengal and Assam the number of books registered fell from 223 to 201. Some reaction was noticeable from the extremist tendency displayed in the political writings of the previous year. There were signs of an awakened interest in literature on the part of the Muhammadan community.

*Other Provinces.*—The publications issued in the Central Provinces were not of any special interest. There were no publications in Coorg during the year under review.

# CHAPTER XV.

## LOCAL SELF-GOVERNMENT.

General. | District and Local Boards.
Municipalities. | Port Trusts.

### General.

Local self-government, municipal and rural, in its present form is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and to various provincial Acts passed about that time, which greatly altered the constitution, powers, and functions of municipal bodies—especially by widely extending the elective system—and which still form the basis of the provincial systems in force. At the same time the resources and financial responsibility of municipalities were increased. Municipal committees now exist in most towns of any importance. In the rural districts local and district boards were established by Acts of 1883–5. The local boards are under the control of a general district board, or send delegates to a district council. The systems vary in different provinces, as a large discretion is left to the provincial governments. The elective principle has been adopted in varying degrees. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities and in cantonments. In the Punjab, United Provinces, Burma, Bombay, Central Provinces and Berar, and North-West Frontier Province certain provisions of the Municipal Acts are extended to small towns which are not fitted for the full responsibilities of municipal government, but nevertheless require organised measures for sanitation and other purposes. These, which are described as Notified Areas, must not be purely agricultural, and must not have a population exceeding 10,000. In 1909–10 there were 179 such areas with an aggregate income of £74,422. In the chief ports specially constituted boards or "trusts" have charge of harbour works, port approaches, and pilotage.

### Municipalities.

(*For further details see Statistical Abstract for British India, Tables* 101 *to* 103.)

*General.*—The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province and of the three presidency capitals, Bombay, Calcutta, and Madras. In the municipalities as a whole about half of the members are elected by the townsfolk under legal rules; in every town some, and in a few minor towns all, of the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members. The number of Indian and non-official members, however, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or byelaws can be enforced without similar sanction and full publication.

There were 717 municipalities at the end of 1909–10, containing within their limits nearly 16¾ million people, or 7 per cent. of the total population of British India. Generally speaking, the income of municipalities is small. In 1909–10 their aggregate income amounted to £4,307,000, excluding loans, sales of securities, and other extraordinary receipts. About 39 per cent. of the total is provided by Calcutta, Bombay, Madras, and Rangoon. Loans are incurred for water supply and drainage schemes, the cost of which is too large to be defrayed from ordinary revenues. Considerable loans have been obtained in the past from Government, but in 1909–10 specially heavy loans were raised in the market. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax

on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yield about one-fifth of the total income of municipalities. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some places a tax on professions and trades. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education.

The interest in municipal elections, and in municipal affairs generally, is not usually keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. In most provinces municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur. The tendency of local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance, whether at meetings for business or on benches for the decision of petty criminal cases.

The following table exhibits the constitution of the municipal committees in the chief provinces in 1909–10 :—

| | Number of Municipalities. | Total Number of Members. | By Qualification. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Indians. |
| *Presidency Towns, &c.* :— | | | | | | | | | |
| Calcutta | 1 | 50 | — | 25 | 25 | 8 | 42 | 22 | 28 |
| Bombay | 1 | 72 | — | 16 | 56 | 6 | 66 | 18 | 54 |
| Madras | 1 | 33 | 1 | 12 | 20 | 8 | 25 | 10 | 23 |
| Rangoon | 1 | 25 | — | 6 | 19 | 5 | 20 | 13 | 12 |
| *District Municipalities* :— | | | | | | | | | |
| Bengal | 130 | 1,761 | 145 | 719 | 897 | 252 | 1,509 | 245 | 1,516 |
| Bombay (including Sind) | 157 | 2,172 | 419 | 888 | 865 | 506 | 1,666 | 146 | 2,026 |
| Madras | 61 | 954 | 74 | 416 | 464 | 188 | 766 | 152 | 802 |
| United Provinces | 87 | 1,196 | 143 | 142 | 911 | 250 | 946 | 204 | 992 |
| Punjab | 109 | 1,243 | 230 | 426 | 587 | 250 | 993 | 103 | 1,140 |
| North-West Frontier Province | 8 | 139 | 42 | 97 | — | 42 | 97 | 21 | 118 |
| Central Provinces and Berar | 57 | 763 | 29 | 252 | 482 | 175 | 588 | 74 | 689 |
| Eastern Bengal and Assam | 51 | 664 | 70 | 257 | 337 | 127 | 537 | 69 | 595 |
| Burma | 44 | 557 | 169 | 322 | 66 | 192 | 365 | 151 | 406 |

*Bengal.—Calcutta.*—The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed—four by the Bengal Chamber of Commerce, four by the Calcutta Trades' Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of the chairman and 12 members, who are selected from among the commissioners. Progress was made in 1909–10 with great schemes of water supply and drainage (*see* Chapter XVI. under "Sanitation"). With the growth of prosperity the valuation of the city has increased by 52 per cent. in ten years to £2,225,404, and the revenue shows great elasticity. Retrenchments have been effected in establishment and other charges, and the financial position is stronger than for many years. The revenue collected in 1909–10 amounted to £537,893, while the expenditure was £476,640. Of the income, about 73 per cent. is derived from the consolidated rate, and about 11 per cent. from taxes and licences; of the expenditure, more than one-third is for loan charges. A loan of £400,000 was raised, and the debt at the close of the year amounted to £3,173,500. The interest and sinking fund charges on 31st March 1910 were £169,693. Byelaws relating to plumbers, markets, slaughter-houses, house drainage, and cattle sheds were issued. The building regulations have been amended. Progress in the improvement of bustees was well maintained. The extension of the Sir Stuart Hogg market, which cost £77,000, has been opened. It is proposed to lay out a public park in the northern part of the city. A very large scheme for clearing congested areas and making street improvements has received general sanction, and a draft bill giving effect to the proposals has been prepared.

*Interior of Bengal.*—General elections were held in 53 out of the 130 municipalities. The percentage of voters varied from 93 to 3 per cent. A material extension of the

elective system was made in 18 municipalities. The average attendance of members at the meetings was fairly satisfactory. The incidence of municipal taxation for the whole province averaged 2*s.* 1*d.*, showing a small increase over that of 1908–9. Incidence varied considerably. There were revisions of assessments in 65 municipalities. The rate on holdings was in force in 54, and the tax on persons in 68, municipalities, while in parts of six both were in force. The total revenue of the Bengal municipalities amounted to £358,510, and the ordinary expenditure to £349,530. Thirty-eight municipalities were in debt at the close of the year to a net amount of £266,500, more than half of which was on account of Howrah, which adjoins Calcutta. A free hand in respect of their budgets has been allowed to four large municipalities as an experiment, while other municipalities will receive general official direction rather than explicit direction.

*United Provinces.*—A number of changes in the working of municipalities have been introduced as a result of the report of the Decentralisation Commission. In 17 municipalities the boards have elected non-official chairmen to succeed chairmen. Polls were held in 63 municipalities, and 56 per cent. of the electors voted. The income of the municipalities was £447,596, of which about £234,233 was derived from octroi duties. The incidence of taxation as a whole rose to about 2*s.* 1*d.* per head. The expenditure amounted to £449,882. During the year there was an increase of 6 per cent. in the expenditure on education. In consequence of the report of the Special Committee on Municipal Taxation, published in June 1909, the question whether octroi should be replaced by other sources of taxation is under consideration. Eight boards issued new building regulations. The draft of a new municipal bill is in preparation.

*Punjab.*—The powers of self-government provided in the municipal Acts were granted more freely in the Punjab than elsewhere. Owing, however, to the unsatisfactory working, lack of equity in assessing taxation, and expensive machinery of the smaller municipalities which have insignificant incomes, many municipalities have been converted into notified areas. This process continued in 1909–10, and at the end of the year there were 109 municipalities, besides 95 notified areas, in which cheapness and simplicity of administration are the chief requisites. The system by which each religious community elects its own representatives has proved successful in some towns. Except in Jullundur and some towns in the Delhi Division, elections excited very little interest. The working of the committees at meetings was on the whole unexceptionable. The total income of the year amounted to £389,509, and the total expenditure to £366,541. Octroi, the receipts from which improved, accounts for 60 per cent. of the total income. There appears to be no immediate likelihood of abolishing octroi, possible substitutes, such as the house tax, being highly unpopular. The machinery of collection, however, is being improved, and the cost of collection has fallen in several places. In the municipalities that were converted into notified areas a house tax was generally substituted for octroi. The average incidence of taxation was 2*s.* 11*d.* per head.

*North-West Frontier Province.*—One municipality was converted into a notified area. The ordinary income of the municipalities amounted to £41,046, of which 60 per cent. was derived from octroi duties. The cost of collection of octroi duties was about 11 per cent. of the income therefrom. The elective system is not in force in this province, and members are nominated for three years.

*Burma.—Rangoon.*—The ordinary revenue of the Rangoon municipality rose to £234,270, while the expenditure decreased to £213,630. There was smaller expenditure owing to the reorganisation of establishment, smaller cost of maintenance of water and drainage works, &c. The financial position of the corporation is now more assured. The year showed continued activity in the laying out and practical rebuilding of the town. Milk shops and coolie barracks are being taken in hand, and markets improved. The incidence per head of direct taxation was 15*s.* 6*d.* The outstanding loans at the end of the year rose to £1,111,000, including the reclamation works loans of £303,300.

*Interior of Burma.*—In some municipalities members had to be nominated owing to lack of candidates for election. Plague had again a serious effect on the finances, and expenditure in other directions had to be postponed. A recurring contribution of £20,000 is granted from imperial revenues to meet special sanitary expenditure in the province. Municipalities have been generally administered with efficiency, and most of the members take an interest in the affairs of the towns. Specially good work has

been done in Moulmein. The aggregate income, excluding debt heads, was £239,147, of which £98,098 came from rates and taxes, and £91,365 from markets and slaughter-houses. The expenditure amounted to £233,269. The average incidence of taxation rose to 2*s.* 10*d.* per head of population. The Burma Municipal Act was amended. Further amendments are proposed to deal better with the erection and demolishing of buildings.

*Central Provinces and Berar.*—The elective principle is in force in all but seven of the 57 municipalities. The interest taken in elections varies greatly in different places. The attendance of members was generally satisfactory. The total income of the municipalities was £162,045, over 60 per cent. of which was derived from rates and taxes. The expenditure amounted to £145,080. The average incidence of taxation was about 2*s.* 3*d.* per head. Measures are being taken to render the levy of octroi more uniform in the Central Provinces. Octroi is not levied in Berar. Of the 44 municipalities in the Central Provinces proper, no less than 14 subsisted during 1909–10 on revenues smaller—in most cases considerably smaller—than £700. In Berar municipal taxation is especially low, the incidence being only 1*s.* 5*d.* per head. The total indebtedness of the municipalities was £108,981, over half of which was owed by Nagpur and Jubbulpore. The financial position of the borrowing municipalities is sound.

*Eastern Bengal and Assam.*—Keenly contested elections took place in 10 municipalities. The returns of attendance at meetings indicated an increase of interest in municipal affairs. The income of the 51 municipalities in 1909–10 was £111,848, and the average incidence of taxation was 2*s.* 1*d.* per head. The tax on holdings was in force in 17 towns, the tax on persons in the remainder. The expenditure amounted to £123,189. The net indebtedness at the end of the year was £36,051, the greater part being on account of Dacca and Narayanganj. Poor collections and bad management are the most common faults in municipal administration.

*Madras.—Madras City.*—The income in 1909–10, excluding loans and advances, amounted to £169,065, and the expenditure to £189,779. The average incidence of taxation was about 4*s.* 2*d.* per head. The principal taxes are one of 10 per cent. on the annual value of buildings and lands, a water and drainage tax of 6½ per cent. levied on the same basis, and a lighting tax of 1¼ per cent., besides taxes on animals and vehicles, &c. The outstanding debt of the municipality at the end of the year was £541,750, against which must be set a sinking fund of £161,370.

*Interior of Madras.*—The number of municipal councils in the mufassal was 61, in 58 of which the elective system was in force. No candidates appeared for four elective seats. Out of 1,638 meetings 120 were adjourned for want of a quorum. Nine councils consisted entirely of Indian members. The income increased to £333,380, and the average incidence of taxation was nearly 1*s.* 9*d.* per head. The total expenditure was £344,235. The outstanding debts at the end of the year amounted to £185,925, against which there was a sinking fund of £12,420. A fair standard of efficiency was maintained in some municipalities, but in seven (including Tanjore, Vizagapatam, and Salem) the administration left much to be desired.

*Bombay.—Bombay City.*—Bombay City is administered by a corporation of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The ordinary income in 1909–10 was £747,591 and the expenditure £759,803. There was a further large increase of receipts, resulting from the general expansion of the city and the rise in values of rateable properties. There was, however, a deficit in the year's working owing to expenditure on improvements, &c. It is thought that expenditure on street improvements and on establishments may be curtailed, while property taxes may be made to yield a larger amount. During the year the general tax was raised from 8 to 9⅛ per cent. The average incidence of taxation per head was 13*s.* 1*d.* At the end of the year the outstanding debt was £3,660,547, and the invested sinking fund £629,309. The financial position of the municipality is assured beyond question. The expenditure on plague preventive measures from the outbreak of the epidemic in 1896, to the end of March 1909, has amounted to £482,088, of which £96,700 was received from the Government, and the remainder met partly from loans and partly from municipal revenues.

The capital expenditure of the Bombay City Improvement Trust, which is engaged in reclaiming land, clearing slum areas, laying out new streets, erecting chawls, &c., amounted to £450,764. During the year the large area of 1,100,000 sq. yds. of land was acquired, and good progress was made in erecting chawls. A sterling loan of £566,600 was raised in 1909–10, the amount of the loans being thus brought up to

£2,667,000. The year's revenue, derived from the municipal contribution and receipts from investments, rents, and other property, amounted to £142,684, and the expenditure, exclusive of capital charges, to £139,177.

*Interior of Bombay.*—During 1908–9, with the object of quickening interest in local affairs, Government relaxed its control by empowering 87 municipalities not specially excepted to select non-official presidents and by conceding to five city municipalities the privilege of electing two-thirds of the number of their councillors on their agreeing to appoint a Government servant as chief officer of the executive. In 1909–10 this privilege was extended to 34 additional municipalities. On the whole, municipal administration, where not impeded by faction, was satisfactory. Gross inefficiency, however, marked the administration in Ahmedabad, Ratnagiri, and Kaira, and in the last of these the municipality was suspended. The aggregate income rose by 13 per cent. to £538,321, and the aggregate expenditure to £564,724. Octroi receipts rose materially owing to a good season and a large number of marriages. The accounts of most of the municipalities were audited by the Local Audit Department, and only in one case were serious irregularities exposed.

## District and Local Boards.

*(For further details see Statistical Abstract for British India, Table* 104.)

*General.*—In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district there is a board subordinate to which are two or more local boards. The boards contain a varying proportion of elected members. Elected members form a large proportion of the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of district boards in 1909–10 was 197, and of local boards 517. There are no boards in Burma. The following table shows the general constitution of the boards in each province, the figures in italics relating to local boards, the others to district boards:—

| Province. | Number of Boards. | Total Number of Members. | By Appointment. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Indians. |
| Madras | 23 | 702 | 109 | 272 | 321 | 275 | 427 | 134 | 568 |
| | *83** | *1,219* | *85* | *1,106* | *28* | *364* | *855* | *84* | *1,135* |
| Bombay | 25 | 540 | 5 | 295 | 240 | 135 | 405 | 79 | 461 |
| | *212* | *3,103* | *20* | *1,698* | *1,385* | *632* | *2,471* | *156* | *2,947* |
| Bengal | 29 | 598 | 163 | 185 | 250 | 200 | 398 | 184 | 414 |
| | *78** | *942* | *68* | *611* | *263* | *128* | *814* | *85* | *857* |
| United Provinces | 48 | 895 | 1 | 274 | 620 | 247 | 648 | 101 | 794 |
| Punjab | 29 | 1,115 | 244 | 512 | 359 | 258 | 857 | 74 | 1,041 |
| | *17* | *309* | *17* | *108* | *184* | *17* | *292* | *2* | *307* |
| N.-W. Frontier Province | 5 | 216 | 49 | 167 | — | 49 | 167 | 25 | 191 |
| Central Provinces and Berar | 21 | 502 | 8 | 129 | 365 | 74 | 428 | 16 | 486 |
| | *75* | *1,266* | *17* | *337* | *912* | *137* | *1,129* | *6* | *1,260* |
| Eastern Bengal and Assam | 14 | 283 | 73 | 108 | 102 | 99 | 184 | 53 | 230 |
| | *52** | *685* | *104* | *268* | *313* | *138* | *547* | *144* | *541* |

* Besides 389 union committees or *panchayats* (with 3,739 members, of whom only 48 are Europeans) in Madras, 52 in Bengal, and 9 in Eastern Bengal and Assam.

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. Up to 31st March 1908 the proceeds of these rates were included in the general revenues, and assignments from them were made to the boards. From April 1908 the accounts of the boards have been excluded from the general provincial accounts, and their funds treated independently in the same way as municipal funds. The new system remedies certain practical inconveniences and gives the boards freedom of reappropriation. The Government of India now make a grant-in-aid to the funds of all boards equal approximately to one-fourth of their income from rates or cesses levied on land. The chief object is to enable the boards to provide improved roads and other local needs. The boards have also other sources of income, such as cattle pound receipts (except in Madras), educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their

aggregate income (excluding debt items) in 1909–10 was £3,226,000. The expenditure of the boards is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

*Bengal.*—In Bengal, the attendance at the district, and still more at the local board, meetings, was not very satisfactory, though there was absence of friction in working. Little interest was shown in elections. Efforts are to be made to encourage the growth of village organisation in the form of union committees in suitable localities. The ordinary income of the district boards was £416,470. The receipts from provincial rates, £240,653, were larger, while those from civil works rose to £88,936. The expenditure, excluding debt, was £439,085, of which £79,367 was spent on education and £277,094 on civil works, chiefly roads and bridges. Four light railways constructed under the guarantee of district boards continued to work satisfactorily, and some extensions were made.

*United Provinces.*—Interest in the work of the boards was well maintained, though elections awakened little enthusiasm. On the suggestion of the Royal Commission on Decentralisation local committees of the boards were formed in most sub-divisions. The time has come for greater reliance on local resources. The aggregate income amounted to £539,640, including provincial grants. The expenditure amounted to £531,615. There were increases under civil works and under medical charges, although the year was healthier than the preceding one. The expenditure of district boards has rapidly increased during recent years, and has been largely met from provincial contributions, which amounted, in 1909–10, to £145,000.

*Punjab.*—A lack of interest is still shown in elections to district boards, and candidates are hard to find. In the working of the boards, too, members display little efficiency. The Local Government has ordered that a meeting of each board shall be held at least once in two months. The year was one of general prosperity, and the ordinary income of the boards for 1909–10 rose to £356,400, of which the chief item was £185,500 from provincial rates. The expenditure was £359,800, of which the chief items were civil works £144,000, education £81,400, and medical charges £38,650.

*North-West Frontier Province.*—There is no elective system in this province. The working of the district boards was on the whole satisfactory. The average attendance of members showed some improvement. The aggregate income of the boards was £24,270 and their expenditure £23,914. Most of the income was derived from provincial rates. Of the expenditure, about 24 per cent. was on education.

*Central Provinces and Berar.*—The interest taken in elections is small, but this is because local notables are re-elected without opposition. Any further extension of activities is hampered by the limited sources of income. The attendance of members of the boards at the meetings is not good, probably owing to the exiguous funds and trivial business, but a few take a real interest in affairs. The ordinary income amounted to £161,700, excluding debt heads, while the expenditure was £157,270. The chief source of income, as in other provinces, is provincial rates, but receipts from cattle pounds constitute an exceptionally large proportion of the total. The bulk of the expenditure was on civil works, including roads and schools and other buildings, and on education.

*Eastern Bengal and Assam.*—There was generally an improvement in the attendance of members of boards, but in the case of four it was exceptionally bad. In Eastern Bengal the improvement recorded last year in the representation of the Muhammadan community, which includes two-thirds of the population, was maintained. Of the income of the boards, £306,626, nearly one-half accrued from provincial rates, and over one-third from Government contributions for education, roads, &c. Their expenditure amounted to £335,704, of which £91,664 was devoted to education and £192,846 to civil works. There are nine union committees in the province.

*Madras.*—One-half of the members of the district boards are, as a rule, elected by the taluk boards. In 1909 the elective system was introduced for taluk boards, the elected members being generally limited to one-third of the maximum strength. Thus about 500 seats were thrown open to election. There were in Madras 23 district boards, 82 taluk boards, and 389 village unions. The village union *panchayats* or councils have each not less than five members; they deal chiefly with sanitation, and the making and repair of roads, and in some cases they have the

management of choultries, markets, and other local institutions entrusted to them by the taluk boards. On the whole the working of the local bodies was satisfactory. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £878,512, and the expenditure to £830,509. The Tanjore and Kistna District Boards railways yielded net profits of 5·9 and 8·3 per cent. respectively on the capital outlay.

*Bombay.*—The average attendance of members at meetings of the boards did not alter greatly. There were numerous complaints of the apathy of non-official members. The income of all boards in 1909–10, excluding debt heads, was £457,792, a rise, as compared with 1908–9, due to a prosperous season, which facilitated the recovery of past arrears, and to more liberal Government grants for education. The total expenditure of the boards rose to £461,084, most of the increase being for medical relief and education. Of the total expenditure, 34 per cent. was for education, and 54 per cent. for roads, schoolhouses and other buildings, water supply, and other works.

*Burma.*—There are no local boards in Burma. Their place is taken by District Funds in Upper Burma and District Cess Funds in Lower Burma, which are administered by the Deputy Commissioners of the districts. These Funds numbered 36, and had an aggregate income of £234,190 and an expenditure of £244,050 in 1909–10. Those in Lower Burma, known as "District Cess Funds," are the largest, as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £198,974 of the expenditure, of which about £25,000 was on education and about £118,000 on public works. The expenditure from District Funds in Upper Burma was chiefly on public works.

## Port Trusts.

(*For further details see Statistical Abstract for British India, Table* 178.)

*General.*—The administration of the larger ports is placed by various Acts in the hands of Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. They have wide powers, but are more subject than municipal bodies to Government control. Members of these Port Trusts, which include both Europeans and Indians, are for the most part appointed by the Local Governments, and are largely representative of the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks for the convenience of traders and shipping. The chief ports, in which is carried on by far the largest part of the trade of India, are alone dealt with here. There are smaller ports, especially in Madras and Burma, where sums are raised yearly for expenditure on improvements.

*Calcutta.*—The receipts of the Port Trust, mainly as the result of a decline in rice imports, which had been abnormal in 1908–9 owing to famine, decreased by £15,000 to £789,100 in 1909–10, while the expenditure was £801,110. But this total includes three works of an extraordinary and non-recurring nature, which cost £11,400. Receipts have doubled in the last 10 years owing to the enormous expansion in the trade of the port, especially trade in coal, jute, tea, and sugar, although considerable reductions have from time to time been made in the charges on goods. Lands and buildings are a growing source of income. The expenditure upon capital works amounted to £828,500. The more important works completed or in progress were the extension of docks and sidings, the acquisition and reclamation of land, and the provision of a coal depôt, a landing stage, and four ferry steamers. The ferry service, opened in October 1907, has met a great public need. In connection with the scheme for the extension of the Kidderpore Docks and the general improvement of the port, large areas of land have been acquired. The capital debt of the Trust on 31st March 1910, after allowing for £599,000 at the credit of sinking funds, was £5,566,000, of which about £2,048,000 represents Government loans, and the rest mainly debenture loans. The Commissioners during the year raised their second sterling loan, amounting to £700,000. Against this total debt may be set assets amounting to £6,901,000.

*Bombay.*—The receipts of the Port Trust, in 1909–10, amounted to £525,000, and the expenditure to £466,000. In order to build up a larger Revenue Reserve the trustees reduced the temporary rebate on certain dues from 20 to 12½ per cent. and discontinued the rebate on pilotage charges. As a result the rebate on all heads amounted to £38,000. There was a surplus of £26,670 on the year's working, appropriated to the Revenue Reserve Fund, which was thereby raised to £399,000. The new capital expenditure amounted to £550,100, including £337,300 spent on the dock works, and £174,400 on the Mazagon–Sewri reclamation. A 4 per cent. sterling loan of £500,000 was raised in London, and a 4 per cent. debenture loan of 40 lakhs in India. The debt of the Trust amounted at the end of the year to £6,005,000, of which over £2,011,000 is due to Government, while the remainder consists of foreshore securities and debenture loans. The cost price of the properties vested in the Trust was £5,995,000, and various depreciation, reserve, and sinking funds amounted in the aggregate to £798,000. Works for the excavation of the new docks made rather slow progress. Government has sanctioned an estimated expenditure of £872,000 for the Mazagon–Sewri reclamation scheme, involving 518 acres, and satisfactory progress has been made with it.

*Karachi.*—The revenue receipts, owing to the heavy exports of grain and seeds, constituted a record, advancing by 29 per cent. to £219,000, while the expenditure was £196,000. The activity in improvement works continued, and the length of wharfage was increased by 37 per cent. The policy of providing trade facilities at great cost has been justified by the increased advantage taken of them. The capital expenditure on improvements reached £226,900. The total liabilities of the Trust at the end of the year stood at £985,000, of which £77,000 is due to Government.

*Rangoon.*—In 1909–10, owing to the continued expansion of inland trade, the ordinary revenue amounted to £195,000, while the revenue expenditure was £223,000, leaving a deficit on the year's working. During the year the Port Commissioners made a thorough investigation of their present financial position and future policy. In future they will derive their revenue mainly from port and river dues, instead of from landing, shipping, and warehousing charges. An Indian loan of 32 lakhs was raised. The capital expenditure of the year was £547,000, and the total debt amounted to £1,594,000. Substantial progress was made with the river training works, on which the welfare of the port must largely depend. The extensions of wharves in connection with the scheme for the new port works were practically completed.

*Madras.*—The receipts of the Madras Port Trust fell to £70,000 in 1909–10, owing to smaller imports. The expenditure was about 70 per cent. of the revenue. Progress was made in improving the harbour and in furnishing better facilities for handling cargo. The harbour is being provided with a new north sheltering arm and a new entrance, and with new berths and moorings. The debt at the close of the year was 522,000*l.*

# CHAPTER XVI.

## CONDITION OF THE PEOPLE.

VITAL STATISTICS.
PLAGUE.
SANITATION.
HOSPITALS, DISPENSARIES, AND ASYLUMS.
EMIGRATION AND MIGRATION.
PRICES.
WAGES.
FAMINE OR SCARCITY.
GENERAL REMARKS.

### VITAL STATISTICS.

(*Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables* 103–4 *and* 192 *to* 199.)

*General Population. Registration.*—As the date of the census of 1901 recedes, the birth and death rates calculated upon the census returns of that year necessarily become unduly high. Although improvement in registration is being steadily effected, there are still serious defects in some areas. The facts are nearly everywhere collected by an illiterate agency (usually by village watchmen in rural areas), and accurate figures, especially of the causes of death, are unobtainable. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the returns of the last three censuses show that the registered birth and death rates are understated, and, as registration improves, the registered rates must tend to approximate to the calculated rates. An increase in the registered death-rates cannot, therefore, be regarded as proving the impoverishment of the masses. The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents, but to some extent it is only apparent, being calculated on imperfect returns of births.

*Birth-rates and Death-rates.*—The population of the areas in which births and deaths were registered was 226,394,326 according to the census of 1901, and the number of births registered in 1909 was 8,298,379. The provincial rates are given in the table below. The calculated birth-rate in 1909 was 36·65 per mille, compared

| Province. | Birth-rates. | | Death-rates. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1908. | | | 1909. | | |
| | 1908. | 1909. | Rural. | Urban. | Total. | Rural. | Urban. | Total. |
| Bengal | 36·1 | 37·8 | 39·1 | 31·2 | 38·6 | 30·7 | 28·7 | 30·6 |
| Eastern Bengal and Assam | 41·1 | 40·5 | 30·1 | 22·2 | 30·7 | 34·1 | 23·7 | 33·9 |
| United Provinces | 37·5 | 33·3 | 53·0 | 49·2 | 52·7 | 37·3 | 37·6 | 37·3 |
| Punjab | 41·8 | 35·1 | 50·2 | 55·6 | 50·7 | 30·5 | 34·6 | 30·9 |
| North-West Frontier Province | 37·3 | 34·7 | 35·9 | 35·6 | 35·8 | 26·6 | 25·1 | 26·6 |
| Central Provinces and Berar | 52·8 | 51·6 | 38·2 | 37·7 | 38·1 | 32·4 | 39·3 | 33·1 |
| Madras | 32·4 | 33·1 | 25·3 | 32·3 | 26·2 | 21·2 | 26·4 | 21·8 |
| Coorg | 24·2 | 27·6 | 33·5 | 50·3 | 34·9 | 26·5 | 46·2 | 28·2 |
| Bombay | 35·7 | 35·6 | 25·1 | 37·5 | 27·1 | 25·8 | 34·8 | 27·4 |
| Burma { Lower | 34·1 | 35·3 | 25·9 | 42·6 | 28·1 | 25·9 | 40·0 | 27·7 |
| Burma { Upper | 36·3 | 37·1 | 27·2 | 38·8 | 28·5 | 33·2 | 47·6 | 34·8 |
| Ajmere-Merwara | 42·5 | 37·8 | 35·3 | 52·6 | 40·0 | 43·0 | 72·3 | 50·1 |

with 37·78 in 1908 and a quinquennial mean of 38·64. In the Central Provinces the birth-rate per mille of population was again exceptionally high. Only in Bengal, Madras, Burma, and Coorg was the birth-rate higher in 1909 than in 1908. The most serious decrease in the birth-rates occurred in the Punjab, United Provinces, and Ajmere-Merwara, where the people suffered severely from the epidemic of malaria in the autumn of 1908. In most provinces the birth-rates exceeded the death-rates, the most considerable excesses being 18·54 per mille in the Central Provinces, and 11·3 in Madras. In the United Provinces the excess of the death-rate over the

birth-rate was 4·02 per 1,000. The mean percentage of male to female births was 106·83 per mille, ranging from 121·4 in the North West Frontier Province to 104·5 in Madras.

The number of deaths registered during 1909 was 6,998,044, compared with 8,653,007 in 1908, while the death-rate was 30·91 per thousand, or 7·30 lower than in 1908, and 4·88 below the quinquennial mean. The death-rate was still high in the United Provinces, though it declined from 52·7 to 37·3 per mille. The lowest death-rate, 21·8, was again in Madras. In all provinces, except Eastern Bengal, Bombay, Upper Burma, and Ajmere-Merwara, the death-rates were lower than in 1908, and in most cases the reduction was very large. In most provinces the male death-rates exceeded the female.

The greatest mortality occurred in November, while the lowest was July. Infantile mortality was highest in the United Provinces, Bombay, and Upper Burma, and lowest in Madras. A systematic inquiry into the causes of infant mortality in Cawnpore showed that it was largely due to the unclean habits of midwives.

The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150,000 in 1901:—

| City. | 1908. | 1909. | City. | 1908. | 1909. | City. | 1908. | 1909. |
|---|---|---|---|---|---|---|---|---|
| Calcutta - - | 32·6 | 34·1 | Benares* - | 53·1 | 50·8 | Ahmedabad* - | 56·5 | 56·2 |
| Bombay - | 39·5 | 35·7 | Delhi - - | 60·0 | 42·2 | Mandalay - | 40·7 | 51·7 |
| Madras - | 43·7 | 37·9 | Lahore - | 56·4 | 34·7 | Allahabad* - | 28·5 | 17·1 |
| Lucknow* - | 55·3 | 49·4 | Cawnpore* - | 63·1 | 54·8 | Amritsar - | 94·7 | 39·1 |
| Rangoon - | 41·6 | 39·6 | Agra* - - | 35·8 | 26·3 | Poona* - - | 41·4 | 33·7 |

* Excluding cantonment.

*Chief Diseases.*—There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy, widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The table below shows the number of deaths, and the death-rates per 1,000 from each of the principal diseases recorded, in British

| Years. | Cholera. | Small-pox. | Fevers. | Dysentery and Diarrhœa. | Plague. | Respiratory Diseases. | All causes. |
|---|---|---|---|---|---|---|---|
| 1907 - - - - | 408,102 | 103,988 | 4,464,881 | 282,191 | 1,166,223 | 226,419 | 8,399,623 |
| | 1·81 | 0·46 | 19·76 | 1·25 | 5·16 | 1·00 | 37·18 |
| 1908 - - - - | 591,725 | 170,694 | 5,424,372 | 285,921 | 113,888 | 227,817 | 8,653,007 |
| | 2·61 | 0·75 | 23·96 | 1·26 | 0·50 | 1·01 | 38·21 |
| 1909 - - - - | 239,231 | 101,152 | 4,487,492 | 216,956 | 145,333 | 203,363 | 6,998,044 |
| | 1·05 | 0·45 | 19·82 | 0·96 | 0·64 | 0·90 | 30·91 |

India, during the three years from 1907 to 1909. With regard to special diseases, no province escaped the visitation of cholera, which was chiefly prevalent in Upper Burma, Eastern Bengal and Assam, and Bombay, where the death-rates were 2·46, 2·40, and 1·55 per mille respectively. The total cholera mortality, however, was less than half that in 1908. Small-pox was not so widespread as in 1908, the decrease being greatest in the Punjab. Plague, the mortality from which was higher than in 1908, but much below the annual rate in recent years, forms the subject of a separate section. When reference is made to fever in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under the heading. Special measures were taken in several provinces to improve the free distribution and sale of quinine. The fever death-rates, as usual, varied greatly, ranging from 30·94 in the United Provinces to 7·3 in Madras.

*Malaria Conference.*—In October 1909 the Government of India convened a malaria conference at Simla which recommended systematic investigation into the distribution of malaria, the epidemiology and endemiology of malaria, and the physiological and therapeutical action of quinine and other remedies by means of local organisations working under a Central Committee. The Conference suggested practical measures for the extirpation of mosquitoes and for quinine treatment and prophylaxis. It also recommended measures for instructing the people

on the subject of malaria. The Central Committee during 1910 established a central malaria bureau at Kasauli and a laboratory at Amritsar. A periodical and pamphlets have been issued, and a number of investigations undertaken.

*Vaccination.*—The total number of vaccinations performed among the civil population during 1909–10 was 9,090,586, being a decrease of about 30,000 on the previous year's work. Of primary vaccinations 94·6 per cent., and of re-vaccinations 66·6 per cent., were successful, about 35·6 per mille of the population being successfully vaccinated. The number of infants successfully vaccinated was 44·2 per cent. of the number born.

## Plague.

The present epidemic of plague in India first broke out at Bombay in August 1896, and, as the marginal table shows, it has been responsible for a heavy rate of mortality since that date. In 1907 the deaths from plague attained the highest total yet recorded, viz., 1,315,892, for India as a whole, the number in British India alone being 1,166,223, or 5·16 per mille. In 1908 the mortality declined enormously, falling to 156,480, the lowest total since 1900. In 1909 there was once more a relatively low mortality, namely, 178,808 deaths, or fewer than in any year since 1900, excepting 1908. In 1910 there was a severe recrudescence. The mortality again reached its height in March.

| | |
|---|---|
| 1896–97 | 57,543 |
| 1898 | 116,285 |
| 1899 | 139,009 |
| 1900 | 92,807 |
| 1901 | 282,027 |
| 1902 | 576,365 |
| 1903 | 883,076 |
| 1904 | 1,143,993 |
| 1905 | 1,069,140 |
| 1906 | 356,721 |
| 1907 | 1,315,892 |
| 1908 | 156,480 |
| 1909 | 178,808 |
| 1910 | 511,202* |

* Preliminary figures.

Plague is so local in its visitations that all general and unanalysed statistics are likely to prove misleading. Many parts of India have been almost entirely free from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. The mortality in Eastern Bengal and Assam has been at no time appreciable, while in the Madras Presidency and in Burma the epidemic has never reached serious dimensions. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. In some parts of the Punjab the mortality in 1907 was so severe as to disorganise the labour market and to affect the level of wages.

The efforts of Government to discover and apply the most effective methods of remedial action have not been relaxed. The Advisory Committee on Plague Investigation in England and the Plague Commission in India, whose constitution has been described in former issues of this Report, have continued their investigations, which have already led to most important results. The main facts in regard to the mode of propagation of an epidemic and the life history of the plague bacillus have been ascertained, and rational methods of attack have thus been made possible. A popular summary of the principal conclusions arrived at was given in "The Etiology and Epidemiology of Plague" (price 5*d.*), published early in 1908. It is now generally agreed: (1) That epidemic bubonic plague in man is directly dependent on epidemic plague in rats; (2) that the vehicle of contagion between rat and rat and between rat and man is the plague-infected rat-flea; (3) that bubonic plague is not directly infectious from man to man; and (4) that the life of the plague bacillus outside the bodies of men, animals, or fleas is of short duration. In large towns plague may persist through the year, but in villages such persistence is exceptional, and the recurrence of an epidemic is probably due to fresh infection.

In the light of the knowledge and experience now acquired it is possible to deal satisfactorily with the disease when effective control can be established over the sanitary conditions; and in the case of the native army and in limited areas such as jails there has been remarkable success. But attempts to establish such control over large areas would involve too great an interference with the habits, prejudices, and sentiments of the people, and the application of measures of proved utility must depend upon the particular circumstances of each locality and upon the character of its inhabitants. In the face of great practical obstacles, three principal measures for combating plague are now adopted:—

(1) The temporary evacuation of quarters in which plague is prevalent. This has proved to be the most effective way of removing man from contact with infected rat-fleas. Government is ready to supply money and material to provide temporary dwellings and to alleviate the discomfort and distress which must accompany evacuation of quarters, a matter, of course, in which no pressure can be exerted, and in regard to which the wishes and even the prejudices of the people must be consulted.

(2) Inoculation with the prophylactic fluid. The efficacy of this remedy on the occasion of an outbreak has been placed beyond doubt; it is freely resorted to, and encounters little popular prejudice, when the presence of plague is felt; but as a general or permanent remedy it is obviously of limited utility.
(3) The systematic destruction of rats, the diminution of the food supply to which they have access, and, in the course of time, such improvement in the structure of houses as shall render them reasonably rat-proof.

## Sanitation.

*General.*—Increasing attention has been paid in recent years to questions of sanitary reform. Proposals for reorganising and developing the Sanitary Department by appointing medical officers of health and sanitary inspectors are under consideration. The following paragraphs give some account of the chief sanitary works undertaken in the various provinces during 1909.

*Bengal.*—In Calcutta steady progress was made with the great projects of water-supply and drainage, which are of vital importance to the health of the citizens. The water-supply is being doubled and the whole system of distribution reconstructed, so that the legal requirement of a continuous supply of filtered water at a pressure of 40 feet may be complied with. The principal feature of the scheme is a great elevated reservoir at Tallah, to contain nine million gallons, into which all the water will be pumped and from which it will be distributed by gravitation through a large steel main. The pumps are capable of pumping 40 million gallons a day. The reservoir was begun in 1908. The total estimated cost is £461,000. Tolly's Nullah Syphon, a difficult piece of work, has been completed, while the most difficult part of the drainage scheme in the Fringe Area, estimated to cost £200,000, has also been carried out. There has already been a marked improvement in the health of the people in the Fringe Area.

A scheme for the improvement of the congested areas of Calcutta, to be carried out by a Board of Trustees, has been drawn up, and a Bill has been drafted for carrying it out. The expenditure on street improvements and attendant measures will be recovered in rent from the lands acquired, and the balance will be provided partly from a municipal contribution, partly from certain special taxes, and partly from Government grants.

The 128 municipalities in Bengal (excluding Calcutta) spent about 40 per cent. of their income on sanitation. The greater part of a grant of £30,000 by the Government of India was expended on drainage. Much attention was paid to the working of septic tanks, especially those installed by mills on the banks of the Hooghly, and the appointment of an inspector to ensure their efficient working has been justified by success. Schemes of water-supply were in hand at Darjeeling, Monghyr, Bhagalpur, and elsewhere. Drainage schemes were in progress in Puri, Arrah, Darjeeling, and other municipalities. Work was commenced on a further portion of the comprehensive Howrah drainage scheme. The expenditure under the head of conservancy is steadily rising in almost all municipalities. Night-soil is now properly trenched, and trenching grounds are in many cases cultivated at a profit.

*United Provinces.*—In the United Provinces a large proportion of their income was again expended by municipalities on conservancy, water-supply, and drainage. Sanitation made a considerable advance, especially in the larger municipalities. Improvements in drainage and the opening up of congested areas are now the chief needs. Schemes were under consideration for augmenting the supply of piped water at Lucknow, Mirzapur, Cawnpore, and Agra. The more extensive use of meters has checked waste. The results of analyses of drinking-water were uniformly good. A large number of drainage schemes made progress, and work was begun at Farrukhabad, Jaunpur, Budaun, and elsewhere. The drainage of the numerous pits and hollows in towns is to be taken in hand.

*Punjab.*—A sum of £6,667 was distributed to local bodies as a grant-in-aid for sanitary works, of which £2,500 was assigned to the Amritsar sullage scheme. There were signs in Lahore of awakened public interest in sanitation, and measures were taken to improve the sanitary condition of the city. The suburban drainage works at Delhi made good progress. Drainage schemes were sanctioned for Multan, Amritsar, and elsewhere. The Lahore waterworks were nearly completed, and the Delhi water-supply was improved. In rural areas sanitation makes little advance, although the District Boards offer rewards for village sanitation.

*North-West Frontier Province.*—A Government grant of £3,333 enabled a great improvement in sanitation to be made by the municipalities of Peshawar, Abbotta-

bad, and Dera Ismail Khan, in the last of which a system of incineration for refuse has been started.

*Burma.*—Progress was made in Rangoon with the urgently needed pumping station at Yegu and connected works. Reclamation work was carried steadily forward in the Lanmadaw and East Rangoon tracts, the total expenditure being £82,600.

The Burma municipalities (exclusive of Rangoon) spent less than 39 per cent. of their income on sanitation, the cost of plague measures having left only a small amount available. Sanitation in Burma is in a very backward condition, and there is hardly a town or district in which sanitary reform is not a pressing need. At Akyab work on the gravitation water-supply scheme was completed. Water-supply schemes were under consideration for Mandalay and other towns. Progress was made in several towns with cheap refuse incinerators. The Sanitary Board considered schemes for the laying out of sites for railway towns.

*Central Provinces and Berar.*—Out of the Imperial grant of £13,333 substantial sums were allotted for town improvement schemes in Hoshangabad, Raipur, and Drug to relieve the congestion of population, and for an improved water-supply in Seoni. In Nagpur the completion of the new reservoir will double the water-supply. A comprehensive sewerage scheme for Nagpur is in hand, and a similar scheme for Jubbulpore is in preparation. At Jubbulpore incinerators have been erected. Water-supply schemes were in progress at Harda, Khandwa, and Burhanpur. A subordinate sanitary staff is being created and trained for employment in municipal towns.

*Eastern Bengal and Assam.*—The expenditure on sanitation amounted to about 50 per cent. of the income of the municipalities. Schemes for improving the sewerage and drainage of Dacca were under consideration, while the conservancy tramway and the remodelling of the waterworks were completed. Drainage schemes were in progress at English Bazar and elsewhere. Several water-supply projects were under consideration. A grant of £4,000 was allotted for improving water-supplies in rural areas. Anti-malaria operations were continued. Proposals for improving the sanitary service were under consideration.

*Madras.*—In Madras city the construction of the new water-supply works was begun. Plans and estimates amounting to £107,200 for the main drainage of Madras and the local drainage of Tondiarpet were completed. A good deal of work was done in opening up congested areas.

A special grant of £33,140 was made from provincial funds to local authorities for sanitary works. Sanitary progress in mofussil municipalities is slow, owing in some cases to want of money, in others to lack of interest and capacity for management on the part of the councils. During the year waterworks were under construction at Salem, Berhampur, Bezwada, and elsewhere. Comprehensive drainage schemes are contemplated in several of the larger municipalities. The Sanitary Board supervised many sanitary works undertaken by local bodies, including water-supply and drainage schemes, projects for opening up congested areas, the sinking and repair of wells, &c.

*Bombay.*—The water-supply and drainage works in Bombay city were extended. Very large areas of land (1,100,000 sq. yds.) were acquired by the Bombay Improvement Trust. Several improvement schemes for transforming insanitary areas were advanced, and chawls capable of housing nearly 14,600 people were provided or under construction.

Under the stimulus of liberal grants-in-aid, amounting to about £24,500, many improvements in water-supply and drainage are being carried out, and in many towns important works are under construction or investigation. At Pandharpur, an important place of pilgrimage, extensive drainage and water-supply schemes were in progress. Drainage schemes were in progress at Karachi, Ahmedabad, and Hyderabad, and water-supply works at Nasik, Ahmedabad, Karachi, and other towns.

Vessels for the Red Sea pilgrim traffic were cleansed and freed from rats under the direction of the Bombay Port Health Officer. The out-going pilgrims, who numbered 21,056, were medically inspected and their clothing and bedding thoroughly disinfected before embarkation.

## Hospitals, Dispensaries, Asylums, &c.

*Hospitals and Dispensaries.*—The civil hospitals and dispensaries in India, which numbered 2,652 in 1909, against 2,593 in 1908, treated 455,475 indoor and 27,782,604 outdoor patients during the year. The great bulk of their income is derived from government and local and municipal funds, and their total expenditure in 1909 was

£773,720. In addition there is a large number of special police and other medical institutions, as well as many private institutions which are not State-aided. These numbered 1,491, and provided treatment for 146,810 indoor and 6,690,125 outdoor patients. A satisfactory feature is the increased popularity of the dispensaries among women and children. The United Provinces had the largest number of indoor patients, followed by Bengal and Madras. Madras had by far the largest number of outdoor patients. The principal diseases treated are malarial fevers, diseases of the digestive system, ulcers and other skin diseases, diseases of the eye, and diseases of the respiratory system, worms, and diseases of the ear. About 1,247,400 surgical operations were performed.

In 1909 the small-pox wards in the Campbell Hospital at Calcutta were improved and the question of better nursing arrangements was under consideration. In Bombay Presidency two new hospitals were opened, and extensions of several hospitals were in progress. A scheme for establishing additional dispensaries is under consideration. In the Punjab there was a considerable rise in the number of women and children treated. Five women are employed as assistant surgeons and eleven as hospital assistants. In the United Provinces there was a considerable increase in the number of dispensaries and of patients. In Burma the popularity of the hospitals among out-patients, especially better-class women, has increased owing to greater privacy and better accommodation. Facilities for surgical cases and nursing arrangements have been improved. A new general hospital has been opened in Rangoon.

*Pasteur Institutes.*—There are Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former in 1909 was 1,937 as against 1,389 in 1908, the corresponding figures for Coonoor being 658 as against 340.

*Lunatic Asylums.*—The treatment of lunatics at asylums prevails on only a small scale in India, where insanity is less prevalent than in European countries. The census of 1901 showed a decrease of nearly 11 per cent. in the number of insane since 1891. The decrease occurred in nearly all provinces, and was ascribed in many of them to the high death-rate of the insane in famine years. The number admitted into asylums in 1909 was 1,587, the average for the five years to 1909 being 1,593. The total asylum population of the year was 7,377. The causes of insanity are not very accurately classified, but the most important alleged cause is the use of hemp drugs. The expenditure on the asylums amounted to £69,900, most of which was borne by the State.

*Leper Asylums.*—There are many leper asylums, among which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers. The census of 1901 showed a decline in the number of lepers to 97,340, compared with 126,244 in 1891, and the proportion works out to 48 male and 17 female lepers per 100,000 of the population. Berar had the largest proportion of lepers (2 per mille), followed at some distance by Assam, Bengal, the Central Provinces, Burma, Madras, and Bombay, in that order.

## Emigration and Migration.

*(For further details see Statistical Abstract for British India, Tables* 190 *and* 191.)

### *Emigration.*

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government only in British East and Central Africa is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation. This Act made no changes in the substance of the existing law, but merely for convenience repealed all previous enactments and incorporated in one statute the provisions relating to colonial emigration.

An amending Act was introduced into the Governor-General's Legislative Council in the year under review, but was not passed until July 1910.

*Calcutta.*—There were five emigration agencies at work during the year at Calcutta, four representing British colonies and one the Dutch colony of Surinam. The total number of labourers requisitioned rose from 9,276 in 1908 to 9,347 in 1909. The number supplied during the year was 8,420. There was no alteration in the terms offered to intending emigrants. The number of recruiting licences granted was 571, as compared with 598 in 1908; 27 licences were cancelled. The total number of emigrants registered during the year was 12,691, giving an average of 22 emigrants per recruiter, as against 29 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 85·23 per cent.; Bihar, 6·57 per cent.; Bengal, 5·15 per cent.; Punjab, 2·08 per cent.; Central Provinces, 0·62 per cent.; Ajmere, 0·32 per cent.

The number of emigrants admitted to the Calcutta depôts was 10,387, or 3,402 less than in 1908. Of the remainder, 1,827 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts was 0·71, as compared with 0·55 in the preceding year, and the percentage of rejections decreased from 12·78 to 11·68. The percentage of desertions increased from 0·34 to 0·63. After deducting casualties of all kinds, there remained 8,809 emigrants available for despatch to the colonies, of whom 8,686 actually embarked during the year, as against 10,519 in the previous year. They were distributed as follows:—Trinidad, 2,480; Demerara, 2,515; Surinam, 1,906; Fiji, 668; Jamaica, 1,117. The total number shipped included 2,320 women and 316 returned emigrants who re-emigrated. The death-rate on the ships carrying emigrants was 0·49 per cent., 23 out of the 43 deaths that occurred being due to cerebro-spinal fever, and the rest to chest affections and other diseases.

The number of emigrants who returned from the several colonies was 3,941, and their ascertained aggregate savings amounted to over £45,000. The average savings per head varied from about £25 in Trinidad to about £7 in Natal, no figures being available for Mauritius; but 867 adults—22 per cent. of the total number of returned emigrants—brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in Jamaica, Trinidad, and Fiji, and some decrease as regards Natal, Mauritius, and Demerara. The average was again highest in the case of Natal (nearly 10*s.*), and Fiji was again the only other colony where the average remittance exceeded one rupee.

*Madras.*—The number of emigrants embarking from Madras for Natal was 2,520, the corresponding figure for 1908 being 2,190. No emigrants went to Mauritius or the Seychelles. Two thousand three hundred and fifty-one emigrants returned from Natal with savings amounting to £15,351, and 554 from Mauritius without savings.

As regards non-regulated emigration, the number of emigrants to the Straits Settlements decreased from 58,778 to 48,719. The number of passengers increased on vessels bound for Burma, owing to reduction of steamer fares, and decreased to Ceylon, in consequence of the closure of the port of Kayts to passenger traffic and the prospects of a good season in the Madras Presidency.

*Bombay.*—The number of emigrants shipped from the port of Bombay rose from 67 to 68. Of these, 20 were destined as artisans for Mombasa and Uganda. From Karachi 32 emigrants, all of whom were Punjabis, left for service on the Uganda Railway. The number of emigrants who returned to Bombay was 537, of whom 519 returned from employment on the Uganda Railway. From Broach 94, and from Surat 914, persons went as free emigrants to South Africa. The colonial immigration laws continued to have a deterrent effect.

## *Migration.*

*Assam.*—The total labour population at the end of June 1909 was 758,319, an increase of 2,481 on the figures for the preceding year. There was a further decline of 13,902 in the number of "Act" labourers. The number of immigrants was 39,332, as against 60,773 in 1908-9, which was, however, like that of the preceding year, an abnormal figure. Of the 29,397 adults who immigrated, 23,938 were free labourers. The largest number came from the plains districts of the United Provinces. The improvement in the health of coolies during transit was maintained, and the number of deaths fell to 45, of which 38 were from cholera. The number of complaints of fraudulent recruitment fell from 46 to 44; and fraud or irregularity was proved in only six cases. The number of contracts made in recruiting districts fell from 7,295

to 5,268, the number of coolies recruited by *sardars* being 515. The rate of wages slightly increased. The rate of mortality among adults fell to 32·4. Only one complaint of ill-treatment was lodged by a coolie against his employer, and it was dismissed. Desertions decreased from 3,023 to 2,067. The relations between planters and villagers continued to be satisfactory.

*Burma.*—During 1909, 302,287 immigrants and 301,930 emigrants passed through the ports of Burma; the figures for Rangoon being 259,462 and 253,349.

*Madras.*—The number of passengers, excluding indentured emigrants, who arrived at the several ports of the Madras Presidency during the year was 300,712, against 295,029 in 1908. An increase was noticeable in the number of passengers from Burma, owing to the reduction of steamer fares.

*Bombay.*—No noteworthy movement of the population occurred in Bombay during the year under report, beyond the usual seasonal emigration in search of employment. Six of the 22 families which emigrated in the previous year from Bhavnagar to Kaira in order to take up waste lands, returned, apparently to avoid repayment of takavi loans and the payment of land revenue.

## PRICES.

*(For further details see Statistical Abstract for British India, Tables 203 to 209.)*

*General.*—The rise in the prices of commodities in India during recent years has been the subject of much discussion. The marginal table of prices during the 12 years to 1909 has been compiled from Government returns showing the index numbers of the prices of: (*a*) 11 articles imported; (*b*) 28 articles consumed in India or exported; (*c*) food-grains. The prices under (*a*) and (*b*) are wholesale, and under (*c*) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100.

| Year. | Index Number for Articles imported. | Index Number for Articles consumed or exported. | Index Number for Food-grains (Retail Prices). |
|---|---|---|---|
| 1873 - - | 100 | 100 | 100 |
| 1898 - - | 80 | 102 | 139 |
| 1899 - - | 87 | 100 | 137 |
| 1900 - - | 97 | 124 | 192 |
| 1901 - - | 96 | 116 | 157 |
| 1902 - - | 86 | 113 | 141 |
| 1903 - - | 88 | 103 | 126 |
| 1904 - - | 93 | 104 | 117 |
| 1905 - - | 96 | 116 | 147 |
| 1906 - - | 105 | 139 | 179 |
| 1907 - - | 116 | 145 | 180 |
| 1908 - - | 107 | 151 | 231 |
| 1909 - - | 99 | 134 | 195 |

After 1900, a year of severe famine, the tendency of prices for articles of Indian produce was, for several years, downward. The prices of imported articles steadily rose from 1902 to 1907, while a sharp and rapid rise in the prices of articles of Indian produce, especially food-grains, began in 1905. This rise was accentuated in 1907 and 1908 by the widespread failure of crops in Northern India. In 1909 there was a general decline in prices. The Government has deputed an officer to investigate the extent, the causes, and the probable effects of the general rise in Indian prices. Landholders whose land revenue assessments have been settled for long periods, and cultivators who hold land at fixed rentals, reap an advantage from high prices. It is probable that the trading classes benefited by the rise in prices, and there is reason to believe that owing to the enhanced demand for labour, due to industrial activity, the advance in wages has kept pace with the rise in prices in great industrial centres. But where wage rates are more or less customary, or where incomes are more or less fixed, as in the case of pensioners, public and private employees, and the professional classes, the increased cost of living is a serious matter. Extra allowances, known as grain compensation allowances, have been made on a large scale to Government servants to cover the cost of dearer food.

The following paragraphs relating to prices are based on statements contained in agricultural and other reports.

*Bengal.*—Prices, which had attained an unusually high level in 1906–7 and 1907–8, continued high at the beginning of 1908–9, but there was a perceptible fall after the paddy harvest. In 1909–10, owing to favourable harvests, the prices of food-grains were materially lower in all districts.

*United Provinces.*—Prices, which had been generally at a high level since 1905, and had been exceptionally high in 1907–8 owing to famine, declined substantially with the improvement in agricultural conditions in 1908–9 and 1909–10. There was a marked fall in the prices of food-grains, especially wheat, jowar, barley, and maize, though prices did not go back to the rates considered normal prior to 1905.

*Punjab.*—With good harvests in 1909–10, the prices of the principal food-grains gradually fell, though they continued at rates between 21 and 30 per cent. above the average of the 11 years ended 1906–7. Rape-seed and sugar declined only to a small extent, while cotton prices rose very considerably. Agriculturists made large profits, and were able to hold up the bulk of the wheat surplus of 1910 for higher rates—the first time this has been done on a general scale. As regards particular crops, the price of rice was 21 per cent., of wheat, 26 per cent., of jowar, 30 per cent., of bajra, 29 per cent., of cotton (unginned), 50 per cent., and of maize and sugar, 26 per cent. above normal.

*North-West Frontier Province.*—The prices of food-grains continued high throughout the year, though they were lower than in the preceding year. This decline was the natural result of good harvests and of smaller exports of grain down country. The price of cotton was high owing to the world-shortage.

*Central Provinces and Berar.*—The improvement in agricultural conditions resulted in a considerable fall in prices of food grains, which were lower than for many years past. In Berar a good crop of cotton fetched unusually high prices.

*Burma.*—The prices of all agricultural produce continued to fall, though they were still generally above normal and gave good profits to the cultivator. The price of paddy fell by 1 to 2 annas per maund in Lower Burma and by much more in the rice exporting districts of Upper Burma.

*Eastern Bengal and Assam.*—The prices of food-grains, which had been extremely high in 1907–8, declined in 1908–9, and reached a still lower level in 1909–10. There was a steady fall in the retail price of rice from Rs. 4·6 to Rs. 3·2 per maund. The price of jute, which had fallen heavily during 1907–8 and 1908–9, was still lower in 1909–10.

*Madras.*—Generally, the prices of food-grains were slightly easier, though rice was above the scarcity rate everywhere, and ragi in all districts except Tanjore.

*Bombay.*—Owing to the excellent season the prices of food-grains (rice, millet, wheat, and gram) slackened in every district, but were still above the normal. The tendency at the close of the year was downward. The prices of cotton were very high owing to a keen foreign demand, although the outturn was 30 per cent. greater than in the previous year.

## Wages.

(*For further details see Statistical Abstract for British India, Tables* 201 *to* 203.)

*Bengal.*—The high level of wages reached in 1907–8 and 1908–9 was generally maintained during 1909–10, money wages being kept up in spite of lower food prices. This is due partly to the growing demand for skilled labour in towns and in mills, collieries, and brickfields, and on railways, partly to the high prices of food-grains, and partly to the general rise in the standard of comfort. In some districts it is ascribed to the emigration of the labouring classes to Assam and elsewhere. The Bengal Government has arranged for a quinquennial wage census.

*United Provinces.*—The year was such as to afford full occupation to labourers. Wages show no sign of returning to the level customary a few years ago, and are probably still tending to rise. This is all to the good for the labourer, and the low-caste small cultivator, who works the land with his family and occasional help, has little ground for complaint, but high-caste cultivators feel the change in cases where they cannot command labour at the old customary rates, and in some parts they are making their families work. Landholders who cultivate any considerable portion of their land feel the change acutely, and are taking much interest in all kinds of labour-saving machinery. In factories there was no substantial change in the rate of wages in 1909–10.

*Punjab.*—The demand for labour is still in excess of the supply, and wages continue to increase. Agricultural and other unskilled labourers represent 5½ per cent. of the population. In December 1909 a wages survey was carried out in 4,728 Punjab villages. Purely cash rates obtain in 49 per cent. of these, cash rates with supplementary allowances in 48 per cent., and purely grain rates in 3 per cent. Wages of unskilled agricultural labourers have generally doubled in the last 20 years, the advance being specially rapid in the last five years. Actual rates vary much, and only common rates can be given. Wages are highest, 6 to 8 annas per day, in the Central Punjab and in the new canal colonies, where development has been most marked and plague most severe. Hissar

and the submontane districts of Hoshiarpur, Gurdaspur, and Sialkot return 5 annas. In other districts the rate is 4 annas, except in Rohtak (3½ annas), Delhi and Kangra (3 annas), and Gurgaon (2 to 3 annas). The Delhi district has not been so much affected as other districts by plague or by the opening up of irrigated areas. The wages of village artisans and ploughmen have also practically doubled in 20 years. The wages of carpenters range from 6 to 8 annas in the Delhi Division up to 20 annas a day in some Lyallpur villages. Masons usually earn a little more than carpenters, but in many districts carpenters also work as masons. Blacksmiths are usually paid a share of the grain at harvest. Ploughmen generally receive a cash wage (commonly about Rs. 3 per mensem) with a large variety of supplements (food, grain, clothing, bedding, lodging, tobacco, a plot of land to cultivate, and harvest money), probably worth Rs. 9 or 10 a month. The causes of the great increase in wages are the marked rise in the prices of food-grains, heavy mortality from plague, and the greater demand for labour owing to extensions of cultivation, irrigation works, railways, and buildings, and the starting of factory industries. Since about 1,900 labourers have been in a position to dictate terms to employers. Customary rates have given place to competition wages, and labourers move freely in search of more remunerative employment. The shortage of adult labour in factories is serious, though the wages earned are higher than those of agricultural labourers, as, indeed, are urban wages generally.

*North-West Frontier Province.*—There is no separate class of agricultural labourers in the province. Agricultural wages have risen considerably in Peshawar and Bannu districts owing to the great demand for unskilled labour for canal and other works and for military and other non-agricultural purposes, while plague has reduced the supply. Wages have risen, and the general condition of the labourers is satisfactory.

*Central Provinces and Berar.*—Wages continued very high during 1909–10, and in some districts rose further, owing to the heavy cotton crop. Ample employment was available in agriculture, mining, irrigation, and railway works, and, as usual, here were frequent complaints of a shortage in the supply of labour.

*Burma.*—In Lower Burma the rates of wages were much the same as in the previous year. The labour market is not over-stocked, and the condition of the factory operatives is good. Skilled labourers get anything from Rs. 25 to Rs. 60 a month, while coolies get about Rs. 15.

*Eastern Bengal and Assam.*—The year was exceptionally favourable to agriculturists, and the average wages of unskilled agricultural labourers rose to an average of Rs. 10, 9 annas, while food prices were lower. The resident labour force is decreasing with the growth in the general prosperity of the poorer classes.

*Madras.*—Agricultural labourers have not shared proportionately in their employers' prosperity, and their wages will soon have to be enhanced if sufficient labour is to be kept on the land, for there is a great demand for labour on tea and rubber estates in India, Ceylon, and the Straits Settlements.

*Bombay.*—The demand for labour again exceeded the supply. There was an almost general complaint of lack of labourers. Wages continued high among the agricultural population. Only those landholders who pay for labour by a fixed share of the produce are without complaint. The cotton industry was greatly depressed. In factories, wages were on the same level as in the previous year, and no labour troubles of importance occurred, although food prices were lower. The commercial and industrial expansion of cities like Bombay, Karachi, and Ahmedabad, the growth of mining, and the construction of public works, offer a wider field every year for skilled and unskilled labour. In Ahmedabad the activity of ginning factories rendered it difficult to obtain labour for other purposes. Although wages were exceptionally high in Sind, canal-clearing operations could scarcely be carried on owing to scarcity of labour. Everywhere the labouring class has improved its position and is becoming more independent.

## Famine or Scarcity.

*Bengal.*—In the early part of 1909–10 there was distress in North Bihar, and also in Puri and Palamau. Test works were open in Muzaffarpur, Darbhanga, and Bhagalpur; and gratuitous relief was given in these districts, and also in Purnea, Palamau, and Puri. Distress continued in Darbhanga, where malarial fever caused many deaths. Early rains brought relief by providing abundance of field-work, test-works were gradually closed, advances were freely distributed, and by the end of July all relief operations were stopped.

*Eastern Bengal and Assam.*—The year opened with scarcity conditions in Dinajpur, Bogra, Rangpur, Rajshahi, and Malda. In the first three relief operations were continued till the reaping of the early rice crop in the middle of June.

## General Remarks.

The following general notes on the condition of the people during the year are based on observations recorded by the Provincial Governments.

*Bengal.*—The comparative poorness of the harvest of 1908–9 (especially in Behar), succeeding two years of bad crops, made that year one of hardship for all classes. In the early part of 1909–10 distress continued in some districts, but with good rainfall normal conditions of agriculture returned, prices of food-grains fell, and labourers found full employment. The condition of agriculturists improved considerably through the good harvests. The standard of living is rising among the labouring classes as shown by their increased demand for petty luxuries. Distress in Orissa caused emigration to Calcutta.

*United Provinces.*—The province returned to a condition of ordinary prosperity and the last traces of the great famine of 1907–8 disappeared. The autumn harvest was good and the spring crop a bumper one. The great malaria epidemic having come to an end the mortality was about normal.

*Punjab.*—With good harvests and continued high prices the year 1909–10 was one of all-round prosperity for cultivators. There has been an unquestionable advance of late years in the standard of comfort and in the intelligence and enterprise of the agricultural classes. Food, clothing, houses, and utensils all show an improvement. In the Central Punjab luxuries now find a ready sale. Co-operative societies have had a beneficial effect.

*North-West Frontier Province.*—The condition of the people was generally prosperous and improving. The harvests, especially the autumn one, were good, and prices, though they still ruled high, were lower than in the previous year.

*Central Provinces and Berar.*—The year 1909–10, following one of scarcity and high prices, was an unusually good one, and the condition of the people improved. The prices of food-grains declined, and at the close of the year were lower than they had been for some years. A good demand for cotton goods benefited the weavers.

*Burma.*—The unusually prosperous agricultural season in the dry zone of Upper Burma following on a good year in 1908–9 led to an increase in cultivation and greatly benefited the agricultural population, which had suffered from a succession of bad harvests. In Lower Burma the year, in spite of floods, was also very prosperous. Prices, though lower than in the previous year, were sufficient to yield a good return. A good deal of Indian loanable capital has been withdrawn from agriculture in recent years for investment in oil and other industrial companies. The population in general is increasing in prosperity, comfort, and intelligence.

*Eastern Bengal and Assam.*—Although scarcity conditions prevailed in five districts till June, the rest of the Province benefited from good rice crops. The general result was that the condition of the people was much better than in the three previous years. The winter rice harvest was excellent, and largely removed the depression due to the low prices of jute. The excellent outturn of the crops more than compensated the cultivator for the fall in prices.

*Madras.*—The south-west monsoon was favourable, and the dry crop was above the average. The north-east monsoon, however, was below normal, with the result that the paddy crop was badly affected. Prices were easier. No agricultural deterioration is evident anywhere. The ryots show more readiness in adopting improvements.

*Bombay and Sind.*—In 1909–10 the season was excellent. Wages continued high, though prices of food-grains were lower. These facts were somewhat unfavourable to the cultivator, but were more than offset by good crops and very high prices of cotton. The year was distinctly prosperous. Many cultivators paid off debts, and in some cotton tracts there was a considerable manufacture of gold ornaments.

# CHAPTER XVII.

## ARMY AND MARINE.

*(For further details see Statistical Abstract for British India, Tables 70 and 181 to 190.)*

### ARMY.

The sanctioned establishment of the army in India for 1909–10 and its actual strength on 1st April 1910 were as follows :—

| | Sanctioned Establishment. | Actual Strength. |
|---|---|---|
| British officers | 6,205 | 6,293 |
| British warrant and non-commissioned officers and men | 73,447 | 74,287 |
| Native officers, non-commissioned officers, and men | 159,337 | 152,234 |
| Total, 1909–10 | 238,989 | 232,814 |
| „ 1908–9 | 239,004 | 233,555 |

During 1909–10, as in the previous year, four battalions of Native infantry were employed in the colonies. One battalion from the Indian establishment continued to be absent in North China. One battalion was employed for a short time in Somaliland.

The sanctioned establishment of the Native army reserve was 35,736, and its actual strength on 1st April 1910 was 37,422, as against 36,970 on 1st April 1909.

The number of Volunteers in the whole of India on 1st April was as under :—

| | 1909. | 1910. |
|---|---|---|
| Enrolled strength | 36,638 | 38,402 |
| Efficients | 35,597 | 36,816 |
| Reservists | 2,009 | 2,461 |

The net expenditure on the army (exclusive of Special Defence Works) in 1908–9 and 1909–10 was as follows :—

| | 1908–9. | 1909–10. |
|---|---|---|
| | £ | £ |
| Effective charges | 15,266,362 | 14,878,644 |
| Non-effective charges | 3,047,965 | 3,044,809 |
| Total | 18,314,327 | 17,923,453 |

During 1909–10 the process was completed by which the army in India was brought under the system of staff organisation recently introduced in England and in other parts of the Empire, under which the staff is divided into a General Staff responsible for organisation and training, and an Administrative Staff carrying on the current business of army administration.

The system of ordnance factory accounting was reorganised by the institution of a central accounting office with the Inspector-General of Ordnance Factories, and of a separate Audit Department for ordnance factory accounts.

No military operations were undertaken during the year with the exception that a combined military and naval force was sent to the Persian Gulf in January 1910 for the suppression of the illicit traffic in arms. The force was still operating at the end of the year.

*Health of the British and Native Armies.*—The year 1909 was a healthy one, although a legacy of chronic malaria was left from 1908. In the British Army the rates of admission to hospital, of constantly sick, of invaliding, and of mortality, shown in the table on the next page were the lowest ever recorded. Every chief disease, except influenza, shared in the decrease of sickness. An important cause of the recent and rapid improvement in health is personal hygiene, soldiers being instructed how to protect themselves against enteric fever and malaria. As regards enteric fever, they are taught by leaflets and lectures the advantages of inoculation, and mosquito curtains and quinine treatment are employed to guard against ague. The marked decline in venereal diseases is attributed to the encouragement of healthy pastimes,

to education and a better moral tone, and to the growth of temperance, as well as to improvement in the methods, and the longer duration, of hospital treatment. There was much greater sickness and mortality during 1909 in the Northern than in the Southern Army. There was a great decline in invaliding, from 1,078 to 649, ague, heart complaints, tubercle of the lungs, mental diseases, and ear diseases being the chief causes. This decline is partly due to more men being sent to hill stations. The admission rate for ague fell from 244 to 203 per 1,000, or 28 per cent. of the total sickness, and the rate for all venereal diseases was 67·8 per mille, which compares favourably with 90 in 1907 and still more with 486 in 1897. The chief causes of death were enteric fever and abscess of the liver, the mortality from each being 1·58 and 0·48 per mille respectively. The mortality from enteric fever was the lowest since 1875, and the number of deaths was only 113 as against 190 in 1908.

The health of the Native troops was extremely good, all the rates shown in the table below being the lowest on record. The chief cause of sickness was, as usual, ague, the admission rate for 1909 being 179·8 per mille, or 31 per cent. of all cases of sickness, as against 266·2 in 1908. Dysentery, pyrexia, and respiratory diseases were other important causes of sickness. Pneumonia, which, as usual, was the chief cause of mortality, accounted for 33 per cent. of all deaths, the rate being 1·88 per mille. Tubercle of the lungs, malaria, and enteric fever helped to swell the mortality. There were only eight deaths from plague during the year. The chief causes of invaliding were tubercle of the lungs, debility, malaria, and injuries. Sickness and mortality were much higher in the Northern than in the Southern Army.

| | Ratio per Mille of Strength. | | | | | |
|---|---|---|---|---|---|---|
| | British Troops. | | | Native Troops. | | |
| | Average 1903–7. | 1908. | 1909. | Average 1903–7. | 1908. | 1909. |
| Admissions into hospital - - | 879·4 | 839·5 | 716·9 | 634·5 | 674·4 | 584·2 |
| Constantly sick - - - | 54·0 | 45·7 | 40·3 | 23·5 | 22·8 | 20·8 |
| Deaths - - - - | 10·51 | 9·78 | 6·25 | 7·96 | 7·41 | 5·62 |
| Invalids - - - - | 27·91 | 15·64 | 9·07 | 8·95 | 6·63 | 5·74 |

## Military Works.

The expenditure on military works in 1909–10 amounted to £782,569. There was also an expenditure of £28,604 on Special Defence Works. The corresponding figures for 1908–9 were £908,108 and £29,144.

## Marine.

The net expenditure on marine services amounted to £377,697 in 1909–10, as against £351,509 in 1908–9. In this amount are included the cost of the Royal Indian Marine, the contribution towards the expenses of His Majesty's ships employed in the Indian seas, and charges for pilot establishments and vessels, coast lights, and other smaller items.

On the 1st April 1910 the Royal Indian Marine consisted of 10 sea-going vessels, three inland vessels, one hulk, and a number of small steamers, launches, &c. There was an establishment of 104 executive officers, 81 engineer officers, and 76 warrant officers (including 12 assistant surgeons of the Indian Subordinate Medical Department); and the native crews of the vessels (seamen, artificers, and others) numbered, in all, 1,943.

# CHAPTER XVIII.

## FRONTIERS AND NATIVE STATES.

### Frontier States.

*Baluchistan: Frontier and Native States.*—In the Baluchistan Province general peace and quiet prevailed during the year 1909–10. The only disturbing features were raids from across the border by outlaws, who, owing to their possession of modern rifles, were more daring and more difficult to deal with. The general health of the public was good. The Province remained free from epidemic diseases, with the exception of a few imported cases of plague towards the end of March 1910. The most unfortunate event during the year was a shock of earthquake on 21st October 1909. It was felt in most parts of the Agency, but most severely at Belput, Shahpur, and Bhag, where there was great loss of life and property.

The land revenue of British Baluchistan amounted to £66,800, an increase of £7,000 upon that of 1908–9. Owing to scarcity in India prices of foodstuffs ruled high in several districts.

The value of trade with Persia and Afghanistan rose from £133,200 to £170,600. The total trade with Persia, valued at £83,300, exceeded that of the previous year by nearly £20,000.

On the Quetta-Pishin border a number of raids were committed by outlaws aided by transfrontier tribesmen. The Zhob district also was harassed by Momin and other Sherani and Wazir outlaws, who in April 1909 overpowered 13 men of the Zhob Levy Corps, killing 11 of the party. In May 1909 three of the Zhob Levies were killed in an attack by Mahsuds. Three of the ringleaders in these attacks were subsequently captured by the Wano authorities and sentenced to long terms of imprisonment. Since their arrest no serious Mahsud raid has been reported.

The Loralai district was disturbed by several outrages attributed to a Luni outlaw.

The Perso-Mekran border was quiet throughout the year.

Arms and ammunition were landed on the Persian Gulf coast during the year to the estimated amount of 16,500 rifles, 350 revolvers, and over a million rounds of ammunition. In September 1909 the Government of India decided to resume naval operations on the coast, and considerable success attended the operations. Up to April 1910, 6,300 rifles and 620,000 rounds of ammunition had been captured, and 520,000 rounds and over 4,200 rifles after the close of the year. Very large numbers of Afghans went down to the coast, accompanied by many men of the North-West Frontier tribes.

The general attitude and conduct of the tribes in the Quetta-Pishin, Bolan, and Chagai districts were satisfactory. Some trouble was caused in the Sibi district by a section of the Marris, but order was eventually restored.

The working of the police during the year was satisfactory. The Levies did good and useful work throughout the Agency. Steps have been taken to arm a certain number with Martini Henry rifles, in view of the fact that the raiders whom they encounter are well armed with modern weapons.

There were no serious disputes or troubles among the Kalat tribes. The receipts from the six Kalat Niabats administered by the Political Adviser increased by 25 per cent.

The revenue of the Las Bela State was slightly below that of 1908–9. The crops on the whole were good. The Jam was in indifferent health during the year, and was subsequently allowed to proceed to Quetta for a time, leaving the administration of the State in the hands of the Wazir.

Sardar Sir Nauroz Khan, K.C.I.E., the Chief of Kharan, died in June 1909. As a result of the inquiry into Kharan affairs by Major Whyte, which was referred to on p. 126 of the Statement for 1908-9, in October 1909 the new Chief, Sardar Yakub Khan, agreed to the boundaries laid down by Major Whyte, and undertook not to allow traffic in arms in the Kharan State. The annual subsidy of £400 granted to his father was continued by Government, together with an allowance of £266 for

protecting the new Indo-European telegraph line in his territory. Subsequently, however, under evil influences the Chief repudiated the boundary agreed upon, and at the close of the year his attitude was not satisfactory.*

Mir Sir Khudadad Khan, G.C.I.E., ex-Khan of Kalat, died at Pishin on 20th May 1909.

*North-West Frontier Province.*—During the year under review the principal causes of unrest were the outlaws in Afghan territory and the Mahsuds. In other respects unusual tranquillity prevailed, the record of the Khyber Afridis being exceptionally good.

Gangs of raiders operating from bases beyond the Durand boundary gave trouble throughout the year in Kohat, Kurram, Bannu, and the Tochi. The number of serious border offences showed an increase of over 50 per cent. upon the previous year, and raids by outlaws formed nearly a third of the total. The existence of a safe asylum across the Afghan border partly explains the regrettable increase of crime of all descriptions reported in the Province during the year.

The fact that the tribes were much better armed than formerly increased the difficulty of protecting the frontier. A policy of arming villagers was, however, carried into effect, and in the course of the year Martini Henry rifles were issued to all border villages that required them. The villagers were thus enabled to meet raiders on more equal terms, and in some instances with distinct success.

An arrangement was concluded with the Afghan Government for the despatch of a joint Anglo-Afghan Border Crimes Commission† for the investigation and settlement of outstanding cases.

The peace of Kurram was for a time threatened by a border dispute with Afghans over the Kharlachi Canal. A conflict was averted by the intervention of the Chief Commissioner and the restraining influence of Afghan officials.

The year opened with peace between Government and the Mahsud Maliks, but disturbances, promoted by the Mulla Powinda, caused for a time considerable unrest. The Mulla, whose object was to induce Government to invoke his aid in effecting a settlement, was ignored in all dealings with the tribe. He remained a power for evil, the Maliks, though generally well disposed towards Government, being disunited through feuds and unable to restrain him. The raids attributed to Mahsuds and Waziris rose during the year from 56 to 109.

The appointment of Resident, Waziristan, sanctioned in 1908, had good results, and it was hoped by various measures‡ to improve relations with the Waziris.

In the Dir, Swat, and Chitral Agency steady progress and development among the people were reported. The Political Agent was able to do much in the way of keeping the peace. Work on the Upper Swat Canal proceeded without interruption, and satisfactory arrangements were concluded for the acquisition of land.

The Militia, without exception, rendered excellent service. Owing to the conditions of service in Waziristan, recruits for the Waziristan Militia Corps were increasingly difficult to obtain. Good work was done by the Border Military Police. A scheme for their reorganisation was under the consideration of the Government of India.

The weather conditions in the Province were on the whole favourable, and the spring and autumn crops were of good average quality. The year was a satisfactory one for the bulk of the population.

Disturbances connected with religious celebrations by Hindus and Muhammadans broke out in the City of Peshawar on 21st and 22nd March 1910, in which nine lives were lost, and 43 persons were wounded. Many shopkeepers sustained losses through the looting of their premises. On March 22nd it was found necessary to call out troops to aid the police; but there were no further acts of violence, and measures were promptly taken to punish the ringleaders and restore order, and to ensure the early suppression of similar disturbances in the future.

*Kashmir.*—Information as to the affairs of the Kashmir State for the years 1908–9 and 1909–10 was not available when this Statement was prepared. In the Statement for 1907–8 information was given as to the affairs of that year.

*Sikkim.*—The agricultural season in Sikkim was favourable. The rainfall was 139·89 inches, or more than 22 inches above the average of the preceding three years.

---

* He has since been killed by his own troops (April 19th, 1911).

† The Commission met on 26th May 1910, and concluded its labours at the end of October, having disposed of over 2,600 cases.

‡ The enlistment of a number of Mahsuds in the Indian Army was approved by the Secretary of State in December 1910.

The public health was generally good. In the year under review 6,105 persons were vaccinated against 5,652 during the preceding year.

The Maharani has continued making carpets at her factory, but few orders were received from visitors and others. The carpets, however, were well designed and made. The Maharaj-Kumar opened an industrial school with a view to teaching Lepchas and Bhutias some of the handicrafts. Progress in education in the two boarding schools maintained in the State was fair. The number of mission schools during 1909–10 were 13 day schools, 8 night schools, and 4 lace schools for girls.

The receipts and expenditure of the State during 1909–10 were £12,770 and £13,170, against £12,930 and £12,980, respectively, during the preceding year.

During the year under report an extradition arrangement was entered into between Sikkim and Bhutan to regulate the surrender of criminals.

*Frontier Tribes of Eastern Bengal and Assam.*—The Bhutias and Akas received their *posa*, or annual allowance, as usual. *Posa* was also paid to the Darrang Daflas, but a section of the tribe had to be punished for raiding. No complaints were received against the Apa Tanangs. The conduct of the Miris was good, but it was necessary to impose a fine on one section owing to the proceedings of a raiding band. The Doba Abors, whose conduct throughout the year was good, received their customary *posa*. The blockade against two sections of Mishmis was maintained, except in the case of certain Chulikata villagers who were allowed to trade at Sadiya. The Khamtis and Singphos gave no trouble. The Nagas behaved well throughout the year, and large numbers of men from certain tribes offered themselves for work on tea gardens. The Deputy Commissioner of the Naga Hills made two expeditions, against the village of Mozungjami and the Aishan Kukis respectively. Both terminated satisfactorily; the former paid the fine imposed, while the Kukis were disarmed and over 100 guns were collected. Among the independent trans-frontier tribes numerous raids by head hunters were reported, but their relations with Government continued to be satisfactory.

In the Garo Hills the political situation continued to improve. As a result of inquiry made during the year into the alleged grievances af the Garos in respect of forest administration, certain concessions have since been made to them. The boundary between the Habraghat Pargana and the Garo Hills was demarcated.

In the Lushai Hills the indefinite nature of the southern boundary led to friction between one of the chiefs and some villagers in unadministered territory. With one exception, the Siem of Maharam, the conduct of the chiefs in the Khasi and Jaintia Hills was good. A boundary dispute between Khyrim and Mylliem, which threatened to be serious, was composed by demarcation arranged by the Deputy Commissioner. Information as to the Manipur State is given on page 131.

*Burma.*—The year 1909–10 shows a satisfactory record throughout the frontiers of Burma, for freedom from crime and disturbance, and for progress in friendly intercourse with contiguous peoples and with tribes in unadministered territory.

*The Chin Hills.*—The crops in the Chin Hills were generally good. Demarcation of forests continued, and improvements were effected in Public Works administration. The condition of the roads and communications admitted of touring throughout the year. The public health was not satisfactory, and the subject engaged the attention of the local Government.

A serious raid was committed in February 1910, on the village of Naungmo in the Upper Chindwin district. An expedition for the punishment of the raiders, who came from unadministered territory, was sanctioned.*

*The Kachin Hills.*—In the Kachin Hills only one raid was reported on the Chinese border in the year under report. The usual meeting of British and Chinese officials was held at Nawngma, and resulted in an arrangement for the formation of Joint Courts, and in the acceptance by the Chinese of the principles of the Track Law and of a scale of compensation in the settlement of frontier cases.

In connexion with unadministered territory, no serious crimes or disturbances were reported. Relations with trans-frontier Kachins were excellent, and appeared likely to develop into steady friendship. Good feeling was promoted by a highly successful Darbar held by the Lieutenant-Governor at Myitkyina in December 1909.

* The punitive measures were successfully carried out by a column of military police in January 1911.

Much attention was paid during the year to frontier roads and inter-village communication. The settlement of forest reserves continued, and experiments in re-afforestation were made.

*Shan States.*—The administration of the Shan States was peacefully conducted. With a few exceptions the conduct of the chiefs was satisfactory, and in several cases their efforts to maintain a pure and efficient administration were most praiseworthy. In the greater part of the States the seasons were favourable and the crops good; serious losses resulted, however, from floods, both in the Northern and Southern Shan States, and distress was experienced in Manglun, Yawnghwe, and Myelat. The external trade of the States declined, except in timber on the Salween and Mekong. Internal trade was brisk in the Northern States, where the large immigration of Chinese coolies, in consequence of the discontinuance of opium cultivation, made labour plentiful. The total value of the trade with Burma was, for imports, £1,300,000, for exports £1,146,000. Important roads were constructed, and in the Northern States the Burma Mines Company's railway from Manpwi to Bawdwin was completed, while work began on the lower part of the Southern Shan States railway, the most important work ever undertaken in connexion with the States.

The Forest Department largely increased their area under reservation in the Southern Shan States, and completed working plans of teak reserves in the Northern Shan States. Over 9,000 tons of lead were produced at the smelting works of the Burma Mines Company. One prospecting licence in the Northern, and seven in the Southern States, were issued during the year.

Greater interest in education was evinced by the opening of schools maintained by private benevolence; the working of the Department was improved by the restriction of the number of registered schools, and by the development of those retained. The public health was good; small-pox of a very mild type was prevalent, but there was no plague. Vaccination and the use of quinine became more popular.

*Karenni.*—Most of the food supplies of Karenni being imported, prices were high despite good local crops. Depression was experienced in the timber trade, much timber being sold at a loss. The value of imports was £175,800, of exports £78,000. The Southern Shan States Syndicate continued their explorations and were satisfied that rich deposits of tin and wolfram existed, but shortage of labour and difficulties of transport hampered their proceedings.

## Native States.

*Hyderabad.*—The following information regarding the administration of Hyderabad is for the calendar year 1909.

The average rainfall in the State was 29 inches, or four inches less than during the preceding season, and was fairly well distributed, except in two or three districts. There was no general failure of the crops. The price of food-grains was uniformly high, and rain was needed at the close of the year.

The Nizam's Government agreed to the appointment of a Commission to settle two disputes regarding boundaries between His Highness's Dominions and the Kurundwad State in the Bombay Presidency.

The output of gold mined by the Hutti (Nizam) Gold Mining Company, Limited, during the year 1909 was 15,097 ounces, valued at £58,300. A dividend of 10 per cent. was again declared. The Singareni collieries, which are owned by the Hyderabad (Deccan) Company, Limited, produced 442,893 tons of coal during the year under review, as against 444,212 tons raised in 1908. The coolies employed at the mines numbered 8,517, compared with 7,047 in the preceding year. A draft of the Mining Rules proposed by the Mining Rules Committee of 1908 was approved by the Nizam's Government and the Hyderabad (Deccan) Mining Company.

The agreements between His Highness's Government and the Barsi Light Railway regarding the Latur extension were signed in April 1909.

Ten cases of surra were reported in August 1909 to have occurred in the city of Hyderabad. His Highness's Minister was addressed with a view to action being taken on the lines of the Glanders and Farcy Act (XII. of 1899). To avoid delay His Highness's Government promptly provided by executive order a veterinary establishment and segregation camp. On the 28th December it was reported that the blood of 151 horses had been examined and 32 cases of surra detected. Out of these 32 cases 15 animals were destroyed, 10 succumbed to the disease, and 7 were alive. In order

to prevent the spread of epidemic diseases among horses and cattle in Secunderabad, arrangements were made with His Highness's Government to report the appearance of any epidemic disease affecting the horses and cattle of that locality.

An Abkari Act was passed by the Legislative Council in which the words "intoxicating drug" have been so defined as to include Ganja and its preparations.

The estimated income was approximately £2,708,300, compared with £2,860,600 during the year 1908. Increased receipts were anticipated chiefly under Land Revenue, Salt, and Abkari. The expenditure for the year was estimated at £2,822,600 against £2,962,600 during 1908. The principal increases were under the heads Compensation and Assignments, Police, Flood Remedial Measures, Flood Protective Works, and the State Railway from Purna to Hingoli.

*Mysore.*—The rainfall during the year 1909–10 was 38·22 inches or 3·05 inches more than during the preceding year. It was generally seasonable and well-distributed, with the result that the outturn of crops was comparatively good, and the prices of food-grains, which ruled high during 1908–9, fell slightly. The total area cropped (including the area cropped more than once) was 6,302,778 acres, as against 5,926,103 acres during the preceding year.

The public health was not satisfactory. The birth-rate was lower and the death-rate somewhat higher, being 16·63 and 18·51 per mille of population respectively, against 20·31 and 16·26 during the preceding year. Fever, small-pox, and cholera contributed to the increase in the death-roll. Plague was, however, somewhat milder, though it prevailed in all the districts. Satisfactory progress was made in vaccination, more than 102,000 persons having been vaccinated during the year under review. Compulsory vaccination, which had already been introduced into the cities of Bangalore and Mysore and the Kolar Goldfields, was extended to certain municipalities in the Bangalore, Kolar, Kadur, Shimoga, and Chitaldrug districts. A health exhibition was held at Mysore during the Dussera of 1909, at which there were interesting exhibits under the various heads of public health.

The general condition of the cattle was very satisfactory throughout the State. As the agricultural prospects were favourable, four agricultural exhibitions and a large number of cattle shows were held. The year opened with 20 agricultural banks, of which three were wound up; on account of mismanagement Government withdrew from seven banks the entire loans advanced to them.

During the year under review the re-survey of certain talukas and villages in the Mysore State was completed.

There were 87 joint stock companies at the beginning of the year. Of these seven were wound up, and no new companies were registered. The co-operative society movement continued to make steady progress. The number of societies increased by 25, making a total of 70.

The total value of the gold obtained from the mines was nearly £2,120,000, and the royalty realised by Government amounted to nearly £106,700, almost the same as in 1908–9. The quantity of manganese and chrome ore extracted was 38,000 and 2,000 tons, against 56,000 and 3,000 tons respectively, during the year 1908–9.

The total expenditure on public works was nearly £245,000, against nearly £273,300 in 1908–9.

The sanctioned strength of the regular police force was 831 officers and 5,065 men against 855 officers and 5,090 men during the preceding year. The total cost of the Department was approximately £62,900, an increase of £2,300.

The total number of educational institutions, both public and private, was 4,292, with an attendance of 137,729 pupils, against 4,310 institutions and 139,000 pupils during 1908–9. Female education continued to make satisfactory progress. The number of institutions for girls increased from 272 to 286. The number of industrial schools increased from 20 to 21, and their attendance from 1,198 to 1,230.

During the year Tata's silk firm at Bangalore was transferred to the Salvation Army to be worked on non-sectarian lines.

The total receipts, excluding the opening balance, amounted approximately to £2,030,800, against £1,847,300 in 1908–9. The total expenditure was £1,926,000, as against £1,964,300. The cash balance at the beginning of the year was £608,000, against £725,000 in 1908–9.

*Baroda.*—The following information regarding the administration of the Baroda State is for the year ending the 31st July 1909.

The rainfall of the year was about the average in all the districts, but it was neither very timely nor evenly distributed. The yield of staple crops was, however, on the whole, better than in the preceding year. The land revenue collections showed an increase of more than £220,000 year, as arrears were recovered owing to good harvests.

The birth-rate per mille compared with the previous year rose from 24·2 to 24·9 and the death-rate fell from 24·4 to 21·9.

The State Council, presided over by the Minister, held 46 ordinary and four special sittings and dealt with 529 subjects, 71 of which, being beyond the powers of the Council, were referred to the Maharaja for orders.

Trial by jury was commenced experimentally in the case of less serious offences coming before the Sessions Courts of Baroda and Naosari. The arrangements made between the Baroda Durbar and the British Government for the mutual extradition of criminals continued to work satisfactorily. An arrangement was entered into under which summonses and processes from Civil Courts in British India can be forwarded for service direct to the courts of the Baroda State and *vice versâ*. It was also arranged between the Durbar and certain Kathiawar States that Commissions for recording the evidence of witnesses in civil cases should be executed free of cost.

The Legislative Department of the State published 19 Acts and 43 sets of rules during the year. Four Acts were important, and their object is stated below:—

(1) The introduction of tramways into Baroda rendered necessary an enactment for their control and efficient working.

(2) The condition of indebtedness into which certain nobles and zemindars had fallen having attracted the attention of the Durbar, an Encumbered Estates Act was passed enabling Government to take such estates under management and to pay off their debts under approved schemes.

(3) The Hindu Sons' Liability Act was passed to relieve such sons of their liability to pay ancestral debts when they inherited no ancestral property. This was done to bring the law more into harmony with modern notions.

(4) A Compulsory Education Act was passed for the expansion and creation of primary schools, in which education is given free.

Requisite facilities were afforded to the Imperial Postal Department for opening additional post offices and placing letter boxes within the limits of the Baroda State.

With a view to develop trade and commerce and to encourage indigenous industries in Baroda territory, the question of abolishing some of the import duties and of abating the export duty on cotton engaged the attention of the Durbar, and since 1st November 1909 all frontier duties on imports and export duties on cotton in Baroda and the Amreli Districts have been abolished. Octroi duties charged on merchandise by some of the municipal towns were similarly abolished, and all self-governing municipalities were empowered to improve their sources of revenue according to schedules to be approved by the Durbar. The Agricultural Department was further reorganised and placed under the sole charge of the Director of Agriculture, who has been relieved of his other duties. A demonstration farm was started at Dwarka to give instruction in agriculture, and seed depôts were established at Amreli and Vankal to advance to the people the best cotton seed. The Baroda Agricultural Conference met in April 1909. It was presided over by the Director of Agriculture. A temporary veterinary dispensary was opened at Pattan in March 1909.

A geological survey of the State was made during the year, resulting in the discovery of sand for glass-making, white china clay, earth-soda, and cement stone.

Two new industrial concerns were opened with an authorised capital of £16,666, viz., the Chemical Works, Limited, at Naosari and the Amreli Kathiawar Swadeshi Vanat (Weaving) Company at Amreli. These brought the total number of joint stock companies registered during the last two years up to 17, with an aggregate capital of £303,700. Three co-operative credit societies were registered during the year, and five were cancelled, thus leaving 32 at the end of the year.

During the year under report there were 1,267 schools under the control of the Baroda Education Department, compared with 1,280 in 1907–8. English is taught in 27 of these institutions, the number of students on their rolls being 4,888 against 4,783 during the preceding year, excluding the Baroda College. English teaching was also introduced in nine Gujrati boys' schools and in three girls'

schools. For vernacular education there were 2,803 institutions altogether, against 1,253 during the year 1907–8. 165,266 children attended, compared with 104,180 during the preceding year.

Numerous public works were completed or were in progress during the year under report. The total expenditure on public works, inclusive of establishment charges, amounted to £214,800 against £163,300 during the previous year.

The total length of railway lines open during the year was 287·56 miles. A line from Miyagam to Sinore and a line from Kosumba to Zankawav were under construction and several schemes for new lines were under consideration.

The sanctioned strength of the police force, excluding non-effectives, was the same as in the previous year, viz., 926 officers and 3,944 men.

The total income and expenditure of the State were, approximately, £1,173,600 and £940,800, respectively, compared with £1,054,600 and £1,016,900 during the preceding year. The increase in receipts under land revenue amounted to £222,000. There were increases under other heads as well.

The most important domestic event of the year was the death of Fattesing Rao, eldest son and heir-apparent of His Highness the Gaekwar.

*Central India.*—The following information regarding the States in Central India is for the year 1908–9.

The agricultural conditions prevailing during the year were fair. In certain localities the crops were below the average, but on the whole the results were satisfactory. In Gwalior some damage was caused by excessive rain. Drinking water was scarce in parts of the Malwa and Bhopawar Agencies, and the cattle suffered in consequence.

A special feature in the agricultural history of Central India is the increased cultivation of wheat and cotton. The outturn for 1908–9 as compared with 1907–8 was as follows:—

| | Wheat. | | Cotton. | |
|---|---|---|---|---|
| | Area in Acres. | Outturn in Tons. | Area. | Outturn. |
| 1907–8 - - - | 1,680 | 323 | 1,027 | 14 |
| 1908–9 - - - | 2,024 | 392 | 9,829 | 39 |

Increased attention continued to be paid to forestry, the result being most successful in the Indore State.

The famine, which had prevailed in the east of the Central India Agency, ceased before the commencement of 1908–9. The public health was not quite satisfactory during the year, and there was an epidemic of small-pox throughout Central India. Plague continued in the Agency, but the number of outbreaks decreased, and the total number of deaths was 1,404, as compared with 8,800 during the preceding year. Cholera also appeared in the Baghelkhand, Bundelkhand, and Bhopal Agencies.

In July 1908 the Police Division for the Agra-Bombay Road was abolished, the watch and ward being entrusted to the Durbars through whose territory the route runs. The number of dakaities in Central India was 98 against 68 during 1907–8.

The approximate outlay on Imperial public works amounted to £78,930, against £72,300 during 1907–8. The total length of roads maintained by the Department in Central India was 750¼ miles, compared with 761¼. On the completion of Mr. H. Marsh's work in Central India, in December 1908, the post held by him of Consulting Engineer for Protective Irrigation Works in Central India was abolished.

Postal unity was effected between the Bhopal State and the Imperial Post Office.

The new Daly College buildings were in progress. The total expenditure incurred up to the end of the year under report was £38,660, the estimate for the entire scheme being £70,000. The working of the institution was satisfactory. The number of boys on the College roll on 31st March 1909 was 69, and the average daily attendance 55·65. The health of the boys was not satisfactory, owing mainly to malarial fever.

His Highness the Maharaja of Charkhari died during the year. His Highness the Raja of Narsingarh was invested with ruling powers. The minor Chief of Khilchipur was installed on the *gadi*.

*Rajputana.*—The following information regarding the States in Rajputana is for the year 1908–9.

The season was favourable from an agricultural point of view throughout the Agency. The outturn of crops was good and, except in Kota and Alwar, the prices of foodstuffs were easy, with the result that there was a general immunity from famine in all the States.

In Dholpur the area under cultivation was more by 1,12,009 bighas than in the preceding year.

The area under kharif in Marwar (Jodhpur) rose from 6,48,101 acres in 1907–8 to 6,86,682 acres in 1908–9. The increase in rabi was even more extensive. A bumper crop of wheat and grain was harvested.

In Kota the favourable rabi harvest made up for the indifferent kharif crops, and the high prices for food-grains and oil-seeds which ruled benefited the agriculturists and enabled many to recover from their indebtedness.

In Banswara the kharif crop was on the whole good. The rabi crop was, however, below normal.

In Karauli the outturn of kharif and rabi crops was on the whole excellent.

The yield of the rabi crops in Sirohi was very good.

In Bikaner the crops were excellent, and yielded a bumper harvest in every part of the State.

In Alwar, although the crops were below the normal, the zemindars profited by the high prices of food-grains, and thus good progress was made in the collection of State dues.

The year was, on the whole, a healthy one, except that malaria prevailed, especially during the autumn, in several of the States, and there was an outbreak of plague in some of the villages in the Bharatpur, Mewar (Udaipur), Alwar, and Marwar (Jodhpur) States, and one case in Jodhpur itself.

In Marwar (Jodhpur) there was steady progress in irrigation works, and trade was in a flourishing condition, as it was in Alwar where a new stone quarry was opened.

Three new educational institutions were opened in the Kota State.

Seven new village schools were opened in the Jhalawar State, bringing the total number up to 26.

In Mewar (Udaipur) the number of secondary schools increased from two to three. The number of other schools was the same as in the preceding year.

In Jaipur the number of schools rose from 1,047 to 1,135, with 31,125 scholars, as against 28,893 during 1907–8.

The total number of State schools in Bharatpur was 107, against 109 in the previous year. A lower primary school was opened.

In Bikaner a commercial training school, a telegraph training school, and an Urdu school were opened.

Three schools in the Dungarpur State and one in the Dholpur State were closed during the year through lack of public interest.

In 1909 the Degana–Sujangarh section of the Degana Hissar line in the Marwar (Jodhpur) State was opened to traffic, also the following sections of the Nagda–Muttra railway :—

(*a*) Sawai–Madhopur to Kota.
(*b*) „ „ to Gangapur.
(*c*) Hindaun to Muttra.

His Highness the Maharao of Sirohi visited England during the year 1909.

Their Highnesses the Maharawals of Jaisalmer and Dungarpur were invested with ruling powers in December 1908 and February 1909, respectively.

*Bengal.*—In the Cooch Behar State the crops were on the whole good, and the condition of the poorer classes was much improved by a heavy fall in the price of rice. The progress made in the cultivation of tobacco affected them favourably. Malarial fever was less prevalent than in 1908–9; but there was an increase in the number of cases of cholera and small-pox. In view of the recurrence of cholera the improvement of the public water supply was decided on. The new Legislative Council met twice in the year. An improvement took place in the revenue returns, and the expenditure, though higher than in 1908–9, was within the State's income.

H.H. the Maharaja of Cooch Behar was absent from the State for the greater part of the year.

Of the two States, Seraikela and Kharsawan, in the Nagpur Division the former was in charge of the chief, while the latter, owing to the minority of its chief, was under the management of Government. The year was favourable to both States from an agricultural point of view, and the material condition of the people and the public health were generally good. The financial conditions showed improvement. A scheme for the preservation of the forests in Kharsawan was under consideration.

In the Orissa Tributary Mahals the year was one of general prosperity; the harvests were excellent, and the financial position of the majority of the States substantially improved. There was marked progress in all branches of administration. The States of Bonai, Hindole, Kalahandi, Keonjhar, Nayagarh, and Rairakhól continued under Government administration. The chief of Patna died in February 1910 and the succession of his eldest son was recognised by Government.

*Eastern Bengal and Assam.—Manipur.*—The conduct of the hill tribes in Manipur was on the whole satisfactory. The Kukis outside the eastern boundary of the State continued to give trouble until a force of military police was sent against them in February 1910. There was a marked decrease in the number of unlicensed guns confiscated during the year, from which it may be inferred that the number of such weapons possessed by the hill tribes has greatly decreased.

A severe epidemic of malarial fever broke out in May, and lasted for three months. The Imphal waterworks scheme remained in abeyance. The gross revenue of the State was £32,000, an advance of £2,000 upon that of the preceding year. The Manipur Company made considerable progress in sericulture, but experiments in the cultivation of lac proved a failure.

*Hill Tippera.*—The principal event of the year in Hill Tippera was the installation of the new chief, H.H. Raja Birendra Kishore Manikya. The chief officer of the State, Babu Annada Charan Gupta, resigned, and was succeeded by Maharaj Kumar Navadwip Chandra Dev Barman.

The harvests were on the whole satisfactory, though floods resulted from excessive rainfall in July and August. The public health was exceptionally good. Three new dispensaries were opened. The gross revenue, £127,500, was slightly below that of 1908–9; the installation expenses partly accounted for the increased expenditure, which amounted to £145,500.

*United Provinces of Agra and Oudh.*—In the Rampur State the crops throughout the year were satisfactory. Owing to an outbreak of malaria in the autumn the public health was seriously affected, and the excess of deaths over births during the year was 4,000. The finances of the State continued in a sound condition. The working of the new sugar factory and distillery resulted in large profits.

The seasons in the Tehri State were not favourable, and harvests were below the average; no distress, however, was experienced, and the prices of food grains fell considerably. The public health was good, and no epidemic occurred. The gross revenue increased somewhat, but the expenditure exceeded it by £12,000, bringing the closing balance down to £93,000. A dispute with neighbouring States was adjusted by the joint efforts of officers of the Governments of the United Provinces and the Punjab.

*Punjab.*—Agricultural conditions in the Punjab States were generally favourable, and there was a gradual decline in the prices of food-grains. The year was one of general prosperity. Climatic conditions were more favourable to health than in 1907–8; there was no visitation of malaria, and only in Jind was plague reported to be worse than usual.

In the Patiala State the Council of Regency ceased to exist on the investiture of the Maharaja, in September 1909. During the absence of the Raja of Kapurthala in Europe the business of the State was carried on by the Administrative Council under the presidency of an Indian civilian officer lent to the Durbar. In May 1909, popular discontent in Mandi culminated in a serious disturbance which necessitated the despatch of troops from Simla. Order was quickly restored, and steps were taken to regulate the future administration of the State.

*Central Provinces.*—In the year under report the financial position of the Feudatory States of the Central Provinces was generally sound. The crops were good and conditions easy. Crime declined, while attention was given to education and the supply of medical aid. Considerable sums were laid out on State improvements.

The public health was generally good, but small-pox broke out in several districts. Vaccination was adopted in all the States. The potassium permanganate treatment of snake-bite was successfully employed in a number of cases. In several States the mortality among cattle, through disease, was heavy.

Five of the States were under management, owing to the minority of the chiefs. The chief of Korea died during the year, and was succeeded by his son, a minor. The chief of Sarangarh was installed in November.

At the close of the year, at the request of the Raja of Bastar, a body of police, subsequently reinforced by troops, was despatched to his State by the Government of India in order to suppress a rising of aboriginal tribes. Order was restored, and the rebels, found guilty of arson, robbery, and violence, were duly punished.

*Bombay.*—In the States under the political supervision of the Government of Bombay the season was generally more favourable than in 1908–9, especially in the States of North and South Konkan, the Rewa Kantha Agency, and some of the Southern Maratha States, where the outturn of the principal crops was excellent. In some States, particularly in Kolhapur and Kathiawar, the crops were impaired by ill-distributed rainfall, but only in Phaltan were there any signs of scarcity. There large remissions were given, and a test-work was opened, which was, however, attended by few people owing to the extensive demand for labour in the neighbourhood. Generally, the prices of staple grains were stationary, except in a few States, where the excellence of the season permitted a slight fall.

Wages were high, and the demand for labour exceeded the supply. The States which have a sea-borne trade shared in the general prosperity, and in the ports of Kathiawar exports rose by 22 per cent. and imports by 28 per cent. Another mark of the favourable season was the increase in the revenue receipts and the enhanced outlay on public works in most of the States. The recovery of the Southern Maratha States from the depression of the preceding year was noticeable.

The abatement in the ravages of plague was responsible for the widespread decrease in the death-rate, but in most States a diminished birth-rate was reported.

Facilities for education improved with the opening of 147 new schools, while the number of pupils increased by over 6 per cent., raising the percentage of pupils to the whole population of these States to 2·9, compared with 3·5 in British districts.

In the majority of States a slight increase in the number of criminal offences was reported, but there was a general decrease of litigation in the civil courts.

Generally speaking, the condition of the people showed a marked improvement, and nowhere was this more evident than amongst the population of Aundh and of Khairpur, while in Dharampur, Bansda, and Jawhar considerable efforts were made to ameliorate the condition of the backward classes.

There were few changes among the ruling chiefs. H.H. the Nawab of Radhanpur died in February 1910, and the orders of Government recognising his younger brother, Kumar Shri Jalaluddinkhan, as his successor were* awaited at the end of the year. The chief of Aundh having been deposed, Bhavanrav Shrinivasrav Pant Pratinidhi was selected by Government as chief in his place. H.H. the Mir of Khairpur was installed on the *gadi*, and the chief of Sangli was invested with full powers over his jaghir.

Visits were paid to Europe by H.H. the Raja of Rajpipla and by the chief of Jamkhandi.

*Madras.*—The following information for the States of Travancore and Cochin is for the year ended 15th August 1909.

In Travancore the season was normal, and the prices of food-grains were more or less stationary. There was a general absence of malaria and epidemics. Excluding debt heads the total revenue amounted to £780,000, while the expenditure was £746,000, the corresponding figures for the preceding year being £702,000 and £698,000. Excise and customs improved. The State's external trade showed a marked advance, from £2,152,700 to £3,658,600. The expenditure on public works was £158,600 as against £134,000 in 1907–8. On the Kodayar irrigation works £35,200 were spent, the total capital outlay up to date amounting to £362,800.

During the year the Department of Agriculture was reorganised. Changes were made in the administration of the Educational Department, and the receipts and expenditure under this head were greater than in 1907–8.

* The installation of His Highness took place in November 1910.

In Cochin the season was on the whole favourable to agriculture. The mortality from cholera showed a marked decrease. The total receipts and expenditure under service heads amounted to £270,400 and £223,700, the receipts, the highest on record, being £46,900 above those of the preceding year, while the expenditure was less by £26,100. Eight new Regulations were passed during the year, and the Commission of inquiry into the relations between landlords and tenants submitted a report. The separation of judicial and executive functions, which was introduced in the previous year, worked well. The Civil Judicial Department was reorganised, and the reorganised Police Department was at work. The forest settlement work was completed. Primary education was made free for girls and for the backward classes.

The report on the Pudukkottai State is for the year ended 30th June 1910. Owing to deficiency in the rainfall, many of the crops failed, and relief measures were started in December as a precaution against local distress. The public health was fairly satisfactory. The revenue, amounting to £118,700, fell slightly below, while the expenditure, £94,100, was £17,000 above, that of the previous year. Public works expenditure increased, and steps were taken for the improvement of irrigation. Expenditure on education also increased. Owing to ill-health H.H. the Raja was absent in Europe throughout the year.

In Banganapalle the season was a prosperous one, and the total receipts showed some improvement on those of 1908–9. The birth-rate increased and the death-rate declined. The subject of education received attention, and a technical school was opened. The attendance of pupils at the State schools increased during the year.

The administration of the Sandur State was in the hands of the Diwan throughout the year, the Raja being a minor. Despite a satisfactory rainfall, the year's crops showed little improvement; the prices of food-grains, however, were slightly easier. The public health was generally good. Expenditure was normal; a large decrease in revenue was accounted for by the non-collection of rent due from the General Sandur Mining Company. 59,855 tons of manganese ore were exported by this Company during the year.

# APPENDIX.

## Census of 1911.—Provisional Figures.

The fourth general census of India was taken on the night of 10th March 1911. The date was chosen so as to avoid as far as possible religious festivals and fairs, and other ceremonial occasions. Unfortunately, a serious recrudescence of plague interfered considerably with the enumeration in some parts of India, and caused a large temporary decrease in the population of certain towns, many of the inhabitants having left their homes. The census included the whole of Baluchistan (except Kharan), the agencies and tribal areas of the North-West Frontier Province, and several remote tracts of Burma not previously dealt with. Arrangements were made for the enumeration of persons travelling by rail, road, or river, or otherwise absent from home. The total strength of the census staff was about two millions.

The provisional figures show that the total population of British India was 315,001,099 (viz.:—British territory 244,172,371, and Native States 70,828,728), an increase of 20,640,043 on the returns of the census of 1901. To this increase British territory contributes 12,547,564, and Native States 8,092,479. Allowing for the fact that areas for the first time included had a population of 1,731,099, the increase of the Indian population during the decade 1901–11 was 6·4 per cent.

During the decade 1891–1901, India was afflicted by two severe famines followed by severe epidemics of fever, cholera, and other diseases, which caused great mortality. The decade 1901–11 was fairly prosperous; there were no very widespread famines, and the birth-rate was higher. Plague, however, extended its ravages much more widely, causing 6½ million deaths in the decade, while, in 1908, malarial fever was accountable for heavy mortality in the United Provinces and the Punjab Provinces, which have also suffered severely from plague and local famines.

The following tables show the provisional results of the census as regards the population of (I.) the provinces and Native States; and (II.) the principal towns. The population returned at previous Censuses has been corrected, as far as possible, in order to allow for subsequent interprovincial transfers. The largest changes are those necessitated by the partition of Bengal. The population of Manipur State (total 284,465—males 139,632, females 144,833) which was included under the head British Territory in 1901, has now been included under the head Native States. The tribal areas in the North-West Frontier Province have also been shown under the latter head. Sikkim, which in 1901 was classed under Bengal States, is now shown separately.

The areas newly included within the scope of the enumeration are noted below:—

| Name of Tract. | Manner in which Population ascertained. | Population. |
|---|---|---|
| *Burma.* | | |
| Unadministered area in Pakokku Hill tracts | Estimated | 9,123 |
| West Manglun | Estimated | 18,562 |
| Kokang | Estimated | 25,604 |
| *Baluchistan.* | | |
| Mekran | Enumerated | 71,925 |
| Western Sanjirani country | Enumerated | 1,620 |
| *North-West Frontier Province.* | | |
| Agencies and Tribal areas | Estimated | 1,604,265 |
| | Total | 1,731,099 |

## CENSUS OF INDIA, 1911.

### I. TOTAL POPULATION AND VARIATION, 1901–1911.

| PROVINCE, STATE, OR AGENCY. | POPULATION, 1911. | | | POPULATION, 1901. | | | VARIATION, 1901–11. | |
|---|---|---|---|---|---|---|---|---|
| | Total. | Males. | Females. | Total. | Males. | Females. | Actual. | Per cent. |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
| 1. Ajmer Merwara | 501,436 | 266,170 | 235,266 | 476,912 | 251,026 | 225,886 | + 24,524 | + 5·1 |
| 2. Andamans and Nicobars | 26,447 | 19,570 | 6,877 | 24,649 | 18,695 | 5,954 | + 1,798 | + 7·3 |
| 3. Baluchistan (*Districts and Administered Territories*). | 438,016 | 251,811 | 186,205 | 401,648 | 230,108 | 171,540 | + 36,368 | + 9·1 |
| 4. Bengal | 52,656,461 | 26,264,748 | 26,391,713 | 50,715,794 | 25,151,960 | 25,563,834 | + 1,940,667 | + 3·8 |
| 5. Bombay (*Presidency*) | 19,664,546 | 10,239,722 | 9,424,824 | 18,559,650 | 9,583,456 | 8,976,194 | + 1,104,896 | + 6·0 |
| *Bombay* | *16,104,955* | *8,269,309* | *7,835,646* | *15,304,766* | *7,791,136* | *7,513,630* | + *800,189* | + *5·2* |
| *Sind* | *3,513,732* | *1,939,431* | *1,574,301* | *3,210,910* | *1,761,790* | *1,449,120* | + *302,822* | + *9·4* |
| *Aden* | *45,859* | *30,982* | *14,877* | *43,974* | *30,530* | *13,444* | + *1,885* | + *4·3* |
| 6. Burma | 12,057,905 | 6,144,301 | 5,913,604 | 10,490,624 | 5,342,033 | 5,148,591 | + 1,567,281 | +14·9 |
| 7. Central Provinces and Berar | 13,917,637 | 6,931,505 | 6,986,132 | 11,967,132 | 5,924,192 | 6,042,940 | + 1,950,505 | +16·3 |
| 8. Coorg | 175,001 | 97,315 | 77,689 | 180,607 | 100,258 | 80,349 | — 5,603 | — 3·1 |
| 9. Eastern Bengal and Assam. | 33,978,307 | 17,392,218 | 16,586,089 | 30,510,344 | 15,543,023 | 14,967,321 | + 3,467,963 | +11·4 |
| 10. Madras | 41,402,026 | 20,386,338 | 21,015,688 | 38,229,654 | 18,851,329 | 19,378,325 | + 3,172,372 | + 8·3 |
| 11. North-West Frontier Province (*Districts and Administered Territories*). | 2,199,029 | 1,184,201 | 1,014,828 | 2,046,218 | 1,110,378 | 935,840 | + 152,811 | + 7·5 |
| 12. Punjab | 19,962,165 | 10,985,638 | 8,976,527 | 20,330,337 | 10,942,682 | 9,387,655 | — 368,172 | — 1·8 |
| 13. United Provinces of Agra and Oudh. | 47,193,392 | 24,628,344 | 22,565,048 | 47,691,238 | 24,616,617 | 23,074,621 | — 497,846 | — 1·0 |
| *Agra* | *34,631,658* | *18,147,339* | *16,484,319* | *34,858,070* | *18,048,411* | *16,809,659* | — *226,412* | — *·7* |
| *Oudh* | *12,561,734* | *6,481,005* | *6,080,729* | *12,833,168* | *6,568,206* | *6,264,962* | — *271,434* | — *2·1* |
| Total, Provinces | 244,172,371 | 124,791,881 | 119,380,490 | 231,624,807 | 117,665,757 | 113,959,050 | +12,547,564 | + 5·4 |
| 14. Baluchistan (*Agency Tracts*). | 372,995 | 201,868 | 171,127 | 409,098 | 215,412 | 193,686 | — 36,103 | — 8·8 |
| 15. Baroda State | 2,031,453 | 1,055,366 | 976,087 | 1,952,692 | 1,008,634 | 944,058 | + 78,761 | + 4·0 |
| 16. Bengal State | 4,535,657 | 2,270,645 | 2,265,012 | 3,881,448 | 1,954,974 | 1,926,474 | + 654,209 | +16·9 |
| 17. Bombay States | 7,410,024 | 3,764,379 | 3,645,645 | 6,908,559 | 3,512,956 | 3,395,603 | + 501,465 | + 7·3 |
| 18. Central India Agency | 9,365,165 | 4,804,914 | 4,560,251 | 8,514,114 | 4,369,388 | 4,144,726 | + 851,051 | +10·0 |
| 19. Central Provinces States | 2,117,406 | 1,053,467 | 1,063,939 | 1,631,140 | 811,970 | 819,170 | + 486,266 | +29·8 |
| 20. Eastern Bengal and Assam States. | 576,622 | 292,744 | 283,878 | 457,790 | 232,127 | 225,663 | + 118,832 | +26·0 |
| 21. Hyderabad State | 13,375,469 | 6,795,209 | 6,580,260 | 11,141,142 | 5,673,629 | 5,467,513 | + 2,234,327 | +20·0 |
| 22. Kashmir State | 3,157,352 | 1,673,408 | 1,483,944 | 2,905,578 | 1,542,057 | 1,363,521 | + 251,774 | + 8·7 |
| 23. Madras States | 4,813,644 | 2,413,263 | 2,400,381 | 4,188,086 | 2,098,048 | 2,090,038 | + 625,558 | +14·9 |
| *Cochin State* | *918,639* | *458,103* | *460,536* | *812,025* | *405,200* | *406,825* | + *106,614* | +*13·1* |
| *Travancore State* | *3,430,254* | *1,731,955* | *1,698,299* | *2,952,157* | *1,490,165* | *1,461,992* | + *478,097* | +*16·2* |
| 24. Mysore State | 5,806,796 | 2,934,651 | 2,872,145 | 5,539,399 | 2,797,024 | 2,742,375 | + 267,397 | + 4·8 |
| 25. North-West Frontier Province (*Agencies and Tribal Areas*). | 1,622,078 | 864,868 | 757,210 | 79,278 | 48,939 | 30,339 | + 1,542,800 | — |
| 26. Punjab States | 4,210,036 | 2,321,997 | 1,888,039 | 4,424,398 | 2,409,809 | 2,014,589 | — 214,362 | — 4·8 |
| 27. Rajputana Agency | 10,514,111 | 5,506,213 | 5,007,898 | 9,842,416 | 5,165,891 | 4,676,525 | + 671,695 | + 6·8 |
| 28. Sikkim | 88,169 | 45,136 | 43,033 | 59,014 | 30,795 | 28,219 | + 29,155 | +49·4 |
| 29. United Provinces States | 831,751 | 429,367 | 402,384 | 802,097 | 414,414 | 387,683 | + 29,654 | + 3·7 |
| Total, States and Agencies. | 70,828,728 | 36,427,495 | 34,401,233 | 62,736,249 | 32,286,067 | 30,450,182 | + 8,092,479 | +12·9 |
| Total, India | 315,001,099 | 161,219,376 | 153,781,723 | 294,361,056 | 149,951,824 | 144,409,232 | +20,640,043 | + 7·0 |

### II.—POPULATION OF PRINCIPAL TOWNS.

In some towns such as Nagpur, Gaya, and Indore, where plague was prevalent at the time of the Census, many of the inhabitants were absent from their homes and the population shown in this table is far less than it would otherwise have been. A fresh enumeration will be effected in some of these towns later on, when the plague has disappeared.

## II. Population of Principal Towns and Variation, 1901–1911.

| City. | Population, 1911. | | | Population, 1901. | | | Variation, 1901–11. | |
|---|---|---|---|---|---|---|---|---|
| | Total. | Males. | Females. | Total. | Males. | Females. | Actual. | Per cent. |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
| Calcutta with Suburbs and Howrah. | 1,216,514 | 805,475 | 411,039 | 1,106,738 | 724,759 | 381,979 | +109,776 | + 9·9 |
| Bombay* | 972,930 | 633,884 | 339,046 | 776,006 | 479,786 | 296,220 | +196,924 | +25·4 |
| Madras | 517,335 | 265,456 | 251,879 | 509,346 | 256,730 | 252,616 | + 7,989 | + 1·6 |
| Hyderabad | 499,840 | 257,826 | 242,014 | 448,466 | 232,295 | 216,171 | + 51,374 | +11·5 |
| Rangoon | 289,432 | 204,343 | 85,089 | 245,430 | 174,587 | 70,843 | + 44,002 | +17·9 |
| Lucknow | 260,621 | 145,070 | 115,551 | 264,049 | 140,759 | 123,290 | — 3,428 | — 1·3 |
| Delhi | 232,859 | 133,842 | 99,017 | 208,575 | 114,815 | 93,760 | + 24,284 | +11·6 |
| Lahore | 228,318 | 143,045 | 85,273 | 202,964 | 119,996 | 82,968 | + 25,354 | +12·5 |
| Ahmedabad | 215,448 | 116,352 | 99,096 | 185,889 | 97,343 | 88,546 | + 29,559 | +15·9 |
| Benares | 204,222 | 105,811 | 98,411 | 209,331 | 108,813 | 100,518 | — 5,109 | — 2·4 |
| Bangalore (including Civil and Military Station). | 189,393 | 97,477 | 91,916 | 159,046 | 81,086 | 77,960 | + 30,347 | +19·1 |
| Agra | 182,419 | 99,398 | 83,021 | 188,022 | 99,903 | 88,119 | — 5,603 | — 3·0 |
| Cawnpore | 174,031 | 100,043 | 73,988 | 197,170 | 111,280 | 85,890 | — 23,139 | —11·7 |
| Allahabad | 166,463 | 92,547 | 73,916 | 172,032 | 91,762 | 80,270 | — 5,569 | — 3·2 |
| Karachi | 159,270 | 96,265 | 63,005 | 116,663 | 68,386 | 48,277 | + 42,607 | +36·5 |
| Poona | 157,666 | 84,294 | 73,372 | 153,320 | 80,065 | 73,255 | + 4,346 | + 2·8 |
| Amritsar | 152,866 | 88,782 | 64,084 | 162,429 | 93,199 | 69,230 | — 9,563 | — 5·9 |
| Mandalay | 138,456 | 69,691 | 68,765 | 183,816 | 93,583 | 90,233 | — 45,360 | —24·7 |
| Jaipur | 136,491 | 70,635 | 65,856 | 160,167 | 83,854 | 76,313 | — 23,676 | —14·8 |
| Patna | 136,470 | 70,854 | 65,616 | 134,785 | 67,038 | 67,747 | + 1,685 | + 1·2 |
| Madura | 132,669 | 66,215 | 66,454 | 109,760 | 54,512 | 55,248 | + 22,909 | +20·9 |
| Bareilly | 127,476 | 69,008 | 58,468 | 131,208 | 69,853 | 61,355 | — 3,732 | — 2·8 |
| Srinagar | 126,358 | 68,397 | 57,961 | 122,618 | 65,542 | 57,076 | + 3,740 | + 3·1 |
| Trichinopoly | 122,037 | 60,577 | 61,460 | 104,721 | 51,215 | 53,506 | + 17,316 | +16·5 |
| Meerut | 115,471 | 65,597 | 49,874 | 118,129 | 65,568 | 52,561 | — 2,658 | — 2·3 |
| Surat | 114,116 | 59,117 | 54,999 | 119,306 | 61,653 | 57,653 | — 5,190 | — 4·3 |
| Dacca | 108,188 | 62,861 | 45,327 | 89,733 | 49,871 | 39,862 | + 18,455 | +20·6 |
| Nagpore | 101,364 | 58,693 | 47,671 | 127,734 | 66,255 | 61,479 | — 26,370 | —20·6 |
| Jubbulpore | 100,660 | 56,022 | 44,638 | 90,533 | 46,989 | 43,544 | + 10,127 | +11·2 |

* Plague was raging in Bombay when the Census of 1901 was taken. At a special Census taken in 1906 the population was 959,537.

# BIBLIOGRAPHY OF INDIAN OFFICIAL REPORTS, &c.

(MOSTLY ANNUAL.)

*General.*

Statistical Abstract relating to British India (Parliamentary Paper).
Statistics of British India.

*Administration.*

Administration Reports for each Province.

*Legislation.*

Acts of the Legislative Councils of India, Madras, Bombay, United Provinces, Punjab, Bengal, Burma, and Eastern Bengal and Assam.

*Justice and Police.*

Reports on Civil Justice in each Province.
Reports on Criminal Justice in each Province.
Reports on Police in each Province and in Bombay Town and Island, Calcutta, and Rangoon.
Reports on Jails in each Province.
Reports on Reformatory Schools in each Province.

*Finance.*

Finance and Revenue Accounts of the Government of India.
East India Financial Statement (Parliamentary Paper).
Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
Home Accounts (Parliamentary Paper).
Estimate of Revenue and Expenditure (Parliamentary Paper).
Loans raised in England (Half-yearly Parliamentary Paper).
Loans raised in India (Half-yearly Parliamentary Paper).
Mint Reports for Calcutta and Bombay.
Miscellaneous Financial Statistics.

*Land Revenue, &c.*

Land Revenue Administration Provincial Reports for Lower Provinces (Bengal), Eastern Bengal and Assam, United Provinces, Bombay Presidency (including Sind), Punjab, Central Provinces and Berar, Burma, and Madras.
Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North West Frontier Province.
Land Survey Report for Madras.
Reports on Land Records Department for Bombay, Burma, Bengal, United Provinces, Madras, and Punjab.
Reports on Settlement Operations, Punjab and Madras.
Report on Survey and Settlement Operations, Bengal and Eastern Bengal and Assam.
Report on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
Report of the Talukdari Settlement Officer, Bombay.
Report on the Punjab Alienation of Land Act.
Provincial Reports on Court of Wards' Estates.

*Taxation and Opium.*

Salt Departments: Reports for Northern India, Madras, Bombay, Sind, Burma, Bengal, and Eastern Bengal and Assam.
Excise Reports for each Province.
Customs Reports for Bengal, Eastern Bengal and Assam, Madras, Bombay, Sind, and Burma.
Stamp Reports for each Province.
Income Tax Reports for each Province.
Provincial Rates Reports for Bengal and Eastern Bengal and Assam.
Reports on Registration for each Province.
Reports on Opium Departments, Bengal and Bombay.

*Agriculture.*

Season and Crop Reports for each Province.
Agricultural Statistics.
Area and Yield of certain Crops.
Report on Production of Tea in India.
Report on Production of Coffee in India.
Reports on Co-operative Credit Societies for each Province.
Report of Annual Conference of Registrars of Co-operative Credit Societies.

*Forests.*

Review of Forest Administration in British India.
Reports on Forest Administration in each Province.

*Mineral Production.*
Review of Mineral Production (in Records of Geological Survey).
Report on Production of Coal in India.

*Manufactures.*
Statistics of British India. (Part I. Industrial.)
Reports on the working of the Indian Factories Act in each Province.

*Trade.*
Annual Statement of Trade and Navigation, Foreign and Coasting.
Review of the Trade of India (Parliamentary Paper).
Tables of the Trade of India (Parliamentary Paper).
Provincial Reports on Maritime Trade (including working of Merchandise Marks Act) for Bengal, Eastern Bengal and Assam, Bombay, Sind, Madras, and Burma.
Returns of Sea-borne Trade (monthly).
Returns of Land Trade (monthly).
External Land Trade Reports for Bengal, Eastern Bengal and Assam, Burma, Punjab, North West Frontier Province, Sind, and British Baluchistan.
Indian Trade Journal (weekly).
List of Joint-Stock Companies in British India.

*Public Works.*
Administration Report on Railways (Parliamentary Bluebook).
Railways and Irrigation Works. Return of Capital Expenditure, &c. (Parliamentary Paper).
Reports on Public Works: Madras, Punjab, and North West Frontier Province.
Reports on Financial Results of Irrigation Operations.
Reports on Irrigation Revenue in each Province.
Reports of Madras and Bombay Irrigation Departments.

*Post Office and Telegraphs.*
Post Office Report.
Report of Indian Telegraph Department.
Report of Indo-European Telegraph Department.

*Scientific Departments.*
Report of Survey of India.
Records and Memoirs of the Geological Survey of India.
Report on the Meteorological Department.
Indian Weather Review, Annual Summary.
Rainfall of India.
Report on the Progress of Agriculture in India.
Report of the Agricultural Research Institute and College, Pusa.
Bulletins of the Agricultural Research Institute, Pusa.
Memoirs of the Department of Agriculture.
Agricultural Journal (quarterly).
Reports of the Departments of Agriculture in each Province.
Reports on various Agricultural Stations, Experimental Farms, and Botanic Gardens.
Administration Report of the Civil Veterinary Department in India.
Reports of the Civil Veterinary Departments for Madras, Bombay, Punjab, Bengal, Eastern Bengal and Assam, and North West Frontier Province.
Reports of the Forest Research Institute and the Dehra Dun Forest School.
Forest Memoirs.
Forest Records.
Report of the Board of Scientific Advice.
Reports of Archæological Departments for India and for each Province.

*Education, Literature, and the Press.*
Education Reports for each Province.

*Local Self-Government.*
Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City, and Rangoon.
Reports on District (or Local) Boards or Local Funds for each Province.
Reports of Port Trusts of Calcutta, Bombay, Madras, Rangoon, and Karachi.

*Vital Statistics.*
Report of the Sanitary Commissioner with the Government of India.
Report on Sanitary Measures in India (Parliamentary Paper).
Reports of the Sanitary Commissioners for each Province.
Vaccination Reports for each Province.
Reports on Civil Hospitals and Dispensaries for each Province.
Reports on Lunatic Asylums for each Province.

*Emigration and Immigration.*
Calcutta Port Emigration Report.
Bengal Inland Emigration Report.
Assam Immigration Report.

*Prices and Wages.*
Prices and Wages in India.

# STATEMENT

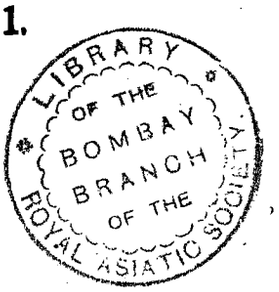
EXHIBITING THE

# MORAL AND MATERIAL PROGRESS AND CONDITION

OF

# INDIA

## DURING THE YEAR 1910-11.




FORTY-SEVENTH NUMBER.

(*Presented pursuant to Act* 21 *&* 22 *Vict. c.* 106, *s.* 53.)

India Office,
28 May 1912.

RICHMOND RITCHIE,
Under Secretary of State for India.

*Ordered, by* The House of Commons, *to be Printed,*
4 *June* 1912.

6X-£-11

LONDON:
PUBLISHED BY HIS MAJESTY'S STATIONERY OFFICE.
To be purchased, either directly or through any Bookseller, from
WYMAN AND SONS, LTD., FETTER LANE, E.C., and 32, ABINGDON STREET, S.W.; or
OLIVER AND BOYD, TWEEDDALE COURT, EDINBURGH; or
E. PONSONBY, LTD., 116, GRAFTON STREET, DUBLIN.

PRINTED BY
EYRE AND SPOTTISWOODE, LTD., EAST HARDING STREET, E.C.,
PRINTERS TO THE KING'S MOST EXCELLENT MAJESTY.
1912.

147. *Price* 1*s.* 2*d.*

# PREFACE.

THE Statement exhibiting the Moral and Material Progress and Condition of India is presented to Parliament in each year in accordance with the requirements of the 53rd section of the Act for the better Government of India (21 and 22 Vict., cap. 106), which provides as follows:—"The Secretary of State in Council shall, within the first fourteen days during which Parliament may be sitting next after the first day of May in every year, lay before both Houses of Parliament an account for the Financial Year preceding that last completed of the Annual Produce of the Revenues of India . . . and such account shall be accompanied by a Statement prepared from detailed reports from each Presidency and District in India, in such form as shall best exhibit the Moral and Material Progress and Condition of India in each such Presidency."

The Statement is prepared in the India Office from a large number of annual reports received from India. Many of these reports are compiled from information furnished by District and Political Officers, and are submitted to the Governments of the respective Provinces and to the Government of India for consideration and review before transmission to England; and some of them, which deal with the operations of important departments and require the careful consideration of the authorities in India, are not received at the India Office till about a year after the date of the period to which they refer. It is, therefore, seldom possible to present the Statement to Parliament earlier than the date mentioned in the Statute, *i.e.*, about thirteen and a half months after the close of the official year.

# TABLE OF CONTENTS.


| | PAGE |
|---|---|
| I. ADMINISTRATION AND LEGISLATION: | 1–6 |
| Administration | 1 |
| Legislation | 2 |
| II. JUSTICE AND POLICE: | 7–12 |
| Civil Justice | 7 |
| Crime and Police | 8 |
| Criminal Justice | 10 |
| Jails | 12 |
| III. FINANCE: | 14–21 |
| Form of Accounts | 14 |
| Gross Revenue and Expenditure | 14 |
| Net " " " | 15 |
| Provincial Finance | 16 |
| Home Charges | 17 |
| Capital Outlay on Public Works | 17 |
| Debt | 18 |
| Currency and Exchange | 19 |
| Banks | 21 |
| IV. LAND REVENUE: | 22–29 |
| Land Tenures | 22 |
| Land Legislation | 23 |
| Revenue Surveys and Settlements and Land Records | 24 |
| Revenue Assessments and Incidence | 25 |
| Collection of the Revenue | 26 |
| Wards' and other Estates | 29 |
| V. REVENUE FROM TAXATION AND OPIUM: | 30–42 |
| Salt | 30 |
| Excise | 33 |
| Provincial Rates | 37 |
| Stamps | 38 |
| Customs | 38 |
| Income Tax | 39 |
| Registration | 39 |
| Opium | 41 |
| VI. AGRICULTURE: | 43–51 |
| Season and Crop Reports | 43 |
| Agricultural Produce | 45 |
| Co-operative Credit Societies | 49 |
| VII. FORESTS | 52–55 |
| VIII. MINERAL PRODUCTION AND MINING: | 56–58 |
| Mineral Production | 56 |
| Mining Concessions | 58 |
| Inspection of Mines | 58 |
| Mining Education, &c. | 58 |
| IX. MANUFACTURES: | 59–63 |
| Industrial Development | 59 |
| Large Industries | 59 |
| Factory Legislation | 62 |
| " Inspection | 62 |
| Patents and Designs | 63 |
| X. TRADE: | 64–68 |
| Foreign Seaborne Trade | 64 |
| Land Frontier Trade | 67 |
| Coasting Trade | 67 |
| Shipping | 67 |
| Freights | 67 |
| Working of the Merchandise Marks Act | 68 |
| Joint Stock Companies | 68 |
| XI. PUBLIC WORKS: | 69–78 |
| General | 69 |
| Railways | 69 |
| Irrigation | 73 |
| Buildings and Roads (Civil) | 77 |
| XII. POST OFFICE AND TELEGRAPHS: | 79–83 |
| Post Office | 79 |
| Telegraphs | 81 |
| Indo-European Telegraph Department | 82 |
| XIII. SCIENTIFIC DEPARTMENTS: | 84–91 |
| General | 84 |
| Board of Scientific Advice | 84 |
| Survey of India | 84 |
| Other Surveys | 85 |
| Meteorological Department | 85 |
| Agricultural Departments | 86 |
| Civil Veterinary Department | 89 |
| Imperial Forest Research Institute | 91 |
| Archæological Department | 91 |
| Medical Research Institutes | 91 |
| XIV. EDUCATION, LITERATURE AND THE PRESS: | 92–101 |
| Education | 92 |
| Literature and the Press | 99 |
| XV. LOCAL SELF-GOVERNMENT: | 102–109 |
| General | 102 |
| Municipalities | 102 |
| District and Local Boards | 106 |
| Port Trusts | 108 |
| XVI. CONDITION OF THE PEOPLE: | 110–120 |
| Vital Statistics | 110 |
| Plague | 112 |
| Sanitation | 113 |
| Hospitals, Dispensaries, &c. | 114 |
| Emigration and Migration | 115 |
| Prices | 117 |
| Wages | 118 |
| Famine or Scarcity | 119 |
| General Remarks | 119 |
| XVII. ARMY AND MARINE: | 121–122 |
| Army | 121 |
| Military Works | 122 |
| Marine | 122 |
| XVIII. FRONTIERS AND NATIVE STATES: | 123–134 |
| Frontier States | 123 |
| Native States | 126 |
| APPENDIX—CENSUS OF 1911 | 135–137 |
| BIBLIOGRAPHY OF OFFICIAL REPORTS | 138–139 |


E 0.63 825 C/12 E & S

## Indian Currency and Weights and Measures.

*Currency.*—The silver rupee (containing 165 grains of fine silver and 15 grains of alloy and weighing in all 180 grains troy or 1 tola) was the sole standard of value until the 26th June 1893, when the Indian mints were closed to the unrestricted coinage of silver into rupees and it was notified that gold coin and bullion would be received at the mints in exchange for Government rupees at the rate of 7·53344 grains of fine gold for one rupee, being equivalent to a rate of exchange of 15 rupees per £1. In 1899 British gold coins were made legal tender side by side with rupees at that rate.

The Indian denominations with their British equivalents are :—

| | |
|---|---|
| Pie | = $\frac{1}{12}$ penny. |
| Pice (3 pies) | = 1 farthing. |
| Anna (12 pies) | = 1 penny. |
| Rupee (16 annas) | = 1*s.* 4*d.* |

A lakh (lac) is 100,000 rupees and a crore is 100 lakhs.

*Weights and Measures.*—The weights adopted in Government transactions and by the railway companies are as follows :—

| | | | |
|---|---|---|---|
| 1 tola | = 180 grains | = | 11·66 grams. |
| 1 chittak (5 tolas) | = 900 „ | = | 58·32 „ |
| 1 ser (16 chittaks) | = 2½ troy lb. (or 2$\frac{2}{5}$ lb. avoir.) | = | 933·10 „ |
| 1 maund (40 sers) | = 100 „ „ (or 82$\frac{2}{7}$ „ „ | = | 37·32 kgms. |

# CHAPTER I.

## ADMINISTRATION AND LEGISLATION.

### ADMINISTRATION.

The following were the holders of the most important appointments connected with the administration of India at the end of the year under review :—

*Secretary of State.*—The Right Hon. Viscount Morley of Blackburn, O.M.; the Right Hon. the Earl of Crewe, K.G., was Secretary of State from 7th November 1910 to 7th March 1911.

*Permanent Under Secretary of State.*—Sir R. Ritchie, K.C.B.

*Parliamentary Under Secretary of State.*—The Hon. E. S. Montagu, M.P.

*Members of the Council of India.*—Sir J. L. Mackay, G.C.M.G., K.C.S.I., K.C.I.E.; Sir W. Lee-Warner, G.C.S.I.; Lieut.-Col. Sir D. W. K. Barr, K.C.S.I.; Sir H. S. Barnes, K.C.S.I., K.C.V.O.; Sir F. O. Schuster, Bart.; Sir T. Morison, K.C.I.E.; General Sir C. C. Egerton, G.C.B., D.S.O.; Sir J. D. La Touche, K.C.S.I.; Krishna Gobinda Gupta, C.S.I.; Sir J. Thomson, K.C.S.I.; Sir S. W. Edgerley, K.C.V.O., C.I.E.; Sir T. Raleigh, K.C.S.I.; Mirza Ali Abbas Baig.

*Governor-General.*—The Right Hon. Baron Hardinge of Penshurst, G.C.B., G.M.S.I., G.C.M.G., G.M.I.E., G.C.V.O., I.S.O.

*Members of Council.*—General Sir O'Moore Creagh, V.C., G.C.B., (extraordinary), Commander-in-Chief; Sir G. Fleetwood Wilson, K.C.B., K.C.M.G.; J. L. Jenkins, C.S.I.; R. W. Carlyle, C.S.I., C.I.E.; S. H. Butler, C.S.I., C.I.E.; Syed Ali Imam; W. H. Clark, C.M.G.

*Lieutenant-Governors.*—Bengal, Sir E. N. Baker, K.C.S.I.; Eastern Bengal and Assam, Sir L. Hare, K.C.S.I., C.I.E.; United Provinces of Agra and Oudh, Sir J. P. Hewett, K.C.S.I., C.I.E.; Punjab, Sir L. Dane, K.C.I.E., C.S.I.; Burma, Sir H. Adamson, Kt., K.C.S.I.

*Members of Council of Lieutenant-Governor of Bengal.*—F. A. Slacke, C.S.I.; F. W. Duke, C.S.I.; Rai Kisori Lal Goswami Bahadur.

*Chief Commissioners.*—Central Provinces, R. H. Craddock, C.S.I.; North-West Frontier Province, Lieut.-Col. Sir G. O. Roos-Keppel, K.C.I.E.

*Governor of Madras.*—Hon. Sir A. Lawley, G.C.I.E., K.C.M.G.

*Members of Council.*—Sir M. Hammick, K.C.S.I., C.I.E.; J. N. Atkinson, C.S.I.; Venkatarama Krishnaswami Aiyar.

*Governor of Bombay.*—Sir G. S. Clarke, G.C.M.G., G.C.I.E.

*Members of Council.*—R. A. Lamb, C.S.I., C.I.E.; Mahadev Bhaskar Chaubal; W. T. Morison, C.S.I.

---

*Creation of an Executive Council for the Lieutenant-Governor of Bengal.*—In exercise of the powers vested in him by Section 3 (1) of the Indian Councils Act, 1909, (9 Edw. 7. c. 4), the Governor-General in Council created an Executive Council in Bengal by proclamation dated 18th November 1910. The number of members was fixed at three or four, two of whom must be persons who have been in the service of the Crown in India for at least 12 years. The Lieutenant-Governor may overrule the Council in cases of high importance essentially affecting the public interest and welfare, in the event of the existence of a difference of opinion between them.

*Decentralization.*—A number of the recommendations of the Royal Commission on Decentralization, referred to in last year's Statement, were considered by the Secretary of State in consultation with the Government of India, and action has been taken on some of them.

*Indian Students.*—The Bureau of Information and the Advisory Committee which were established in 1909 for the benefit of Indian students in England remained in full operation during the year under review. Further progress was made with the scheme for the establishment of a centre of social intercourse among Indian students and their friends and well-wishers in England.

## LEGISLATION.

### I. In England.

*The Assam Railways and Trading Company's Act*, 1910, (10 *Edw.* 7 *and* 1 *Geo.* 5. *c.* 14), varies and defines the rights of the holders of certain shares in the capital of the Assam Railways and Trading Company, Limited.

*The Indian High Courts Act*, 1911, (1 *&* 2 *Geo.* 5. *c.* 18), raises the maximum number of judges of a High Court of Judicature in India, including the Chief Justice, to 20, and gives power for the establishment of a High Court even within the limits of the local jurisdiction of another High Court, which may be altered accordingly; it also empowers the Governor-General in Council to appoint additional temporary High Court judges.

*The Government of India Act Amendment Act*, 1911, (1 *&* 2 *Geo.* 5. *c.* 25), is intended to remove doubts as to whether the Secretary of State has power to grant gratuities to the legal personal representatives of deceased members of his permanent establishment.

### II. In India.

Between the 1st April 1909 and the 31st March 1910 the following enactments received the assent of the Governor-General of India:—Sixteen Acts passed by the Council of the Governor-General for making laws and regulations, two by the Legislative Council of Madras, three by that of Bombay, four by that of Bengal, two by that of the Punjab, two by that of the United Provinces of Agra and Oudh, three by that of Burma and one by that of Eastern Bengal and Assam. Five regulations were passed by the Governor-General in Council on the recommendation of the local Governments of the provinces affected by them in accordance with the provisions of 33 Vict. c. 33.

The following are the measures referred to:—

#### ACTS OF THE GOVERNOR-GENERAL'S COUNCIL.

*The Indian Emigration* (*Amendment*) *Act* (*No. XIV. of* 1910) empowers the Governor-General in Council to discontinue emigration to any country whenever he considers that sufficient reasons exist for taking such action. This power of prohibition could previously only be exercised on the grounds specified in Sect. 5 of the Indian Emigration Act, 1908, (*see* page 115).

*The Cantonments Act* (*No. XV. of* 1910) lays down penalties for the unauthorised sale or possession of intoxicants within cantonment limits, and provides for the imposition in cantonments of taxes which can be imposed in municipalities, and for the application or adaptation to cantonments of the provisions of enactments or rules in force in municipalities relating to the assessment, collection and recovery of taxes, and also to the punishment of breaches of such enactments or rules without the necessity which previously existed for the separate notification of such a penal provision under Sect. 25 of the Cantonments Act, 1889. The Act also provides for the formation and custody of cantonment funds and for other matters connected with cantonments, and, among its supplemental provisions, for the making of rules for the regulation of the traffic on roads and across unenclosed spaces under the control of the cantonment authority.

*The Indian Census Act* (*No. XVI. of* 1910) provided for the taking of the census of 1911.

*The Continuing* (Prevention of Seditious Meetings) *Act* (*No. XVII. of* 1910) provided for the continuance until 31st March 1911 of the Seditious Meetings Act of 1907 which would otherwise have ceased to have operation on 31st October 1910.

*The Opium* (*Amendment*) *Act* (*No. I. of* 1911) provides for the transference of the administrative control of the Opium Department from the Government of Bengal to the Government of the United Provinces.

*The Indian Patents and Designs Act* (*No. II. of* 1911) simplifies and renders more effective the law previously existing for the protection of the rights of inventors.

Under the Act the procedure to be followed in order to obtain a patent for an invention consists of the following steps :—

(*a*) An application for a patent accompanied by a specification must be submitted to the Controller of Patents and Designs appointed under the Act, and a fee of Rs. 10 must be paid.

(*b*) The Controller may, after complete examination, accept an application within a period of twelve months which may be extended by him for a further period not exceeding three months on receipt of an application for such an extension and payment of a prescribed fee.

(*c*) The documents are then published.

(*d*) An interval of three months elapses during which objections to the grant of the patent may be submitted on certain specified grounds.

(*e*) In the absence or failure of objections, the patent is granted on payment of a fee of Rs. 30, and must be sealed as soon as possible and at the latest within eighteen months of the date of application except that, when an extension of time for acceptance of the application has been granted, an extension of four months after the said eighteen months shall be granted for sealing, and except as otherwise provided.

Applicants at steps (*b*) and (*d*) and objectors may appeal from a decision of the Controller to the Governor-General in Council. The effect of this procedure is to give more adequate protection to the public by increasing facilities for objectors, and to the inventor by diminishing his risk in subsequent proceedings for infringement or revocation.

The term of a patent is 14 years and may be extended for a further 7 years, or in exceptional cases 14 years, on petition (to be accompanied by a fee of Rs. 50) to the Governor-General in Council, if the latter, or the High Court, to whom he may refer it, so decides.

Fees are payable amounting to Rs. 50 before the expiration of each year from the 4th to the 8th year inclusive from the date of the patent and of Rs. 100 before the expiration of each subsequent year to the 13th year inclusive from the date of the patent and before the expiration of each year of the extended term of a patent.

A patentee may be compelled to grant licences, or after the expiry of four years from the date of the patent his patent may be revoked, if, in the opinion of the Governor-General in Council or the High Court, to whom he may refer a petition presented with this end in view, the reasonable requirements of the public have not been satisfied. A patent may also, after four years from the date of its grant, be revoked on the ground that it is used wholly or mainly outside British India.

*The Criminal Tribes Act* (*No. III. of* 1911) enacts that tribes may be declared criminal tribes by local governments, and their numbers registered as such, before they are settled and provided with means of living by Government. A tribe may then be restricted in its movements to a specified area or settled in a place of residence, whenever the local Government may recommend this step to the Governor-General in Council and the latter is satisfied of its expediency and that the tribe will have adequate means of earning its living.

*The Indian Ports* (*Amendment*) *Act* (*No. IV. of* 1911) enables provision to be made for the preparation of a satisfactory code of regulations for the prevention of the spread of disease by means of ships arriving at or being in Indian ports.

*The Indian Tramways* (*Amendment*) *Act* (*No. V. of* 1911) brings monorails and electric tramways within the provisions of the Indian Tramways Act, 1886.

*The Indian Tariff* (*Amendment*) *Act* (*No. VI. of* 1911) reduced the rates of duties on tobaccos of all classes by about one-third all round, as the previous higher duties had failed to realise the revenue expected from them.

*The Indian Paper Currency* (*Amendment*) *Act* (*No. VII. of* 1911) provides for an increase in the portion of the paper currency reserve which may be invested from 12 to 14 crores of rupees and for the raising of the permissible maximum of the sterling portion of this reserve of securities from 2 to 4 crores of rupees.

*The Indian Army Act* (*No. VIII. of* 1911) amends and consolidates the previous law relating to the Indian Army which was contained in the Indian Articles of War and various other enactments. The previous law is amended by the restriction of the class of offences for which corporal punishment can be awarded, by the amendment

and simplification of the law relating to enrolment and attestation, by provision for the contingencies of units of the Indian Army Service outside India in time of peace and by changes rendered necessary in view of the reorganisation of the army in divisions and independent brigades instead of the formerly existing "commands."

*The Births, Deaths and Marriages Registration (Amendment) Act (No. IX. of* 1911) amends the similar Act of 1886 (*VI. of* 1886) by providing that notice of a birth or death may be given in writing, and that personal attendance before the Registrar of a person giving such notice shall no longer be necessary, subject, however, to precautions to secure the identification of the person giving the notice. Power to make rules under the Act is delegated to local governments.

*The Prevention of Seditious Meetings Act (No. X. of* 1911) consolidates and amends the law relating to the prevention of public meetings likely to promote sedition or to cause disturbance of public tranquillity (*i.e.*, the Act of 1907 which as continued expired on the last day of March 1911). Amongst other amendments it makes the previous consent of the Governor-General necessary for the notification of proclaimed areas by local governments and removes meetings for the discussion of political subjects as such from the category of meetings for which notice and permission are required.

*The Indian Universities (Amendment) Act (No. XI. of* 1911) empowers the Chancellor of the University of Allahabad to direct that a certain number of the ordinary fellows of the University shall be elected by the registered graduates.

*The Indian Factories Act (No. XII. of* 1911) consolidates and amends the law relating to factories. It contains new provisions—

(*a*) For the health and safety of operatives.

(*b*) For making inspection more effective.

(*c*) For imposing the following restrictions in the case of textile factories:—

(1) No person shall be actually employed for more than 12 hours in any one day.

(2) No person shall be employed before 5.30 in the morning or after 7 in the evening.

(3) The period for which mechanical power is used shall not in any one day exceed 12 hours.

(4) No child shall be employed for more than six hours in any one day.

Of the above restrictions, the second and third will not apply to any factory in which a system of shifts approved by the inspector is in force.

(*d*) For imposing the following restrictions on the employment of women and children in factories generally.

(1) No woman or child may be employed before 5.30 a.m. or after 7 p.m.

(2) No woman shall be employed for more than 11 and no child for more than 7 hours in any one day.

(3) No child shall be employed unless in possession of a certificate showing that he is not less than nine years of age and fit for work in a factory.

(*e*) That managers as well as occupiers shall be liable for breaches of the provisions of the Act.

## Acts of the Provincial Legislative Councils.

Madras.—*The Madras District Court of Wards Act* (1902) *Amendment Act (No. I. of* 1911) delegates to managers appointed by the Court of Wards the power to institute and defend suits and appeals on behalf of wards.

*The Madras City Municipal (Amendment) Act (No. II. of* 1911) makes alterations in the rate and method of collection of certain taxes and licence fees.

Bombay.—*The Bhágdári and Narwádári Tenures Act (No. II. of* 1910) is intended to remove doubts as to the power of Government to reconstitute *bhágs* which had been broken up by forfeiture on account of failure in payment of revenue demands.

*The Bombay Hereditary Offices Act (No. III. of* 1910) provides that "lineal" as opposed to "ordinary" primogeniture shall be the recognised rule in determining who is the nearest heir of a deceased representative *watanlá* for the purposes of registration.

*The Bombay Port Trust (Amendment) Act (No. IV. of* 1910) provides for the appointment of a deputy chairman and the delegation to him of certain duties of the trust.

Bengal.—*The Calcutta and Suburban Police (Amendment) Act (No. III. of* 1910) amplifies existing legislation so as to confer power on the police to meet various emergencies arising at the present day.

*The Bengal Cess (Amendment) Act (No. IV. of* 1910) provides a means of carrying out revaluation for cess purposes simultaneously with settlement work, thereby lessening the cost of revaluation which falls on district boards.

*The Sambalpur Repealing and Amending (Rates and Cesses) Act (No. I. of* 1911) rids the Statute-book of matter which had become obsolete in consequence of the abolition of certain rates and cesses in the Sambalpur district.

*The Bengal Vaccination Amendment Act (No. II. of* 1911) makes various amendments in *the Bengal Vaccination Act,* 1880 (*Bengal Act V. of* 1880), the more important of which are the following:—

(*a*) reducing from one year to six months the age at which children must be vaccinated, the latter being the age now prescribed in England;

(*b*) reducing from three months to one month the period of the currency of certificates that children are unfit for vaccination;

(*c*) suspending for a year the grant of final certificates exempting children from liability to vaccination on the ground of their having been shown to be insusceptible to successful vaccination;

(*d*) authorising the transfer from public vaccinators to the inspectors employed in the Vaccination Department of the duty of granting certificates of unfitness for vaccination, certificates of insusceptibility to successful vaccination and certificates of successful vaccination, and giving such inspectors statutory recognition in other respects.

The Act applies in the first instance to the Calcutta Municipality and Port and Suburban Municipalities only, but power is taken to extend it, by notification, to other areas.

Punjab.—*The Punjab Laws Amendment Act (No. I. of* 1910) removes a restriction on the republication of circulars issued by the Chief Court by which the previous sanction of the Governor-General in Council was required for such republication.

*The Punjab Arbitration Amendment Act (No. I. of* 1911) provides that in the Punjab *the Indian Arbitration Act,* 1899, shall not apply to all agreements to submit present and future differences to arbitration but only to those in which the parties declare that the provisions of that Act shall apply, the object of the limitation being to facilitate the introduction of that Act in certain towns in the Punjab.

United Provinces.—*The Pargana of Kaswar Raja Act (No. I. of* 1911) provides for the modifications necessary to bring the administration of the Pargana of Kaswar Raja into line with that of the remainder of the Benares district in which it is situated, on an agreement being made between the Raja of Benares, of whose family domains it forms part, and the British Government, by which the former has the status in the Pargana of a landholder under the ordinary law; at the same time the Acts under which the Pargana was already administered are left unrepealed.

*The United Provinces Motor Vehicles Act (No. II. of* 1911) provides for the regulation of the use of motor vehicles in the United Provinces.

Burma.—*The Burma Process Fees Act (No. I. of* 1910) consolidates and simplifies the law relating to processes and process-servers.

*The Burma Steam-boilers and Prime-movers Act (No. II. of* 1910) provides for a better classification of engines and a better means of reporting accidents and breaches of the law in connection with their working.

*The Rangoon Police Amendment Act (No. I. of* 1911) provides for the restriction of the carrying of knives, loaded sticks &c., in public places in Rangoon.

Eastern Bengal and Assam.—*The Eastern Bengal and Assam Excise Act (No. I. of* 1910) consolidates and amends the law in force in that province relating to the import, export, transport, manufacture, sale and possession of intoxicating liquor and drugs.

REGULATIONS.

*The Burma Laws Act, Kachin Hill-tribes Regulation and Chin Hills Regulation Amendment Regulation* (*No. II. of* 1910) amends existing legislation with the object of delegating certain powers to the local government.

*The Aden Arms (Sea-traffic) Regulation* (*No. III. of* 1910) provides for prohibition of the unauthorised carriage of arms &c., between places in the Gulf of Aden.

*The Sonthal Parganas Rural Police Regulation* (*No. IV. of* 1910) provides for the organisation and maintenance of the rural police in the Sonthal Parganas.

*The British Baluchistan Bazars Regulation* (*No. V. of* 1910) makes better provision for the administration of certain bazars in British Baluchistan.

*The Upper Burma Oil-fields Regulation* (*No. VI. of* 1910) provides for the control and regulation of the petroleum-mining industry in Upper Burma.

# CHAPTER II.*

## JUSTICE AND POLICE.

| | |
|---|---|
| CIVIL JUSTICE. | CRIMINAL JUSTICE. |
| CRIME AND POLICE. | JAILS. |

*(For further details see Statistical Abstract for British India, Tables 24 to 42.)*

### CIVIL JUSTICE.

*Bengal.*—The most marked feature of the year's working was the very large increase in the number of original suits instituted in mofussil courts. The arrears consequently rose in spite of a substantial increase in the outturn of work. The pending appellate file was slightly reduced. Results of seven appeals to the Privy Council were received during the year; the decisions of the High Court were affirmed in five and reversed in two cases.

*Eastern Bengal and Assam.*—The number of suits instituted in Eastern Bengal and Assam in 1910 shows a very large increase over the figures of the preceding year. The pending file in consequence rose considerably, but there was a substantial rise in the number of suits decided by subordinate judges and munsifs. There was an appreciable decline in the number of appeals instituted, and the files are well under control. A feature of the year's work was the increase in outturn of original and appellate work on contest. The long-pending arrears, both original and appellate, were heavier than in 1909, but the increase in the case of appeals is small.

*North-Western Provinces.*—For legislative purposes the North-Western Provinces and Oudh are united as the United Provinces of Agra and Oudh, but inasmuch as Oudh is not subject to the High Court of the North-Western Provinces, the judicial statistics of the two are given separately.

There was a further increase in the number of suits instituted in the North-Western Provinces, the number of cases before the courts rising from 149,128 to 169,981. The increase was due largely to the unparalleled number of mortgage suits instituted. The number disposed of increased from 133,694 to 139,609. The average duration of cases, which had remained practically unchanged for three years, rose from 66 days for contested and 32 days for uncontested suits to 72 days and 37 days respectively.

*Oudh.*—In Oudh the number of suits showed an increase of 7,554 cases, or 11·8 per cent., on that for 1909; the number of disposals also rose. The average duration of cases fell slightly in both contested and uncontested cases.

*Central Provinces and Berar.*—Litigation showed an increase of 8·6 per cent. in the Central Provinces, and of 9·9 per cent. in Berar. Recovery from a period of agricultural depression and the good harvests of 1909 and 1910 account to some extent for the all-round increase in litigation, but the figures for the year under review were greatly swollen in certain districts by heavy institutions of mortgage suits. From this latter cause also resulted an increase in the pending file of over 15,000 cases. Heavier pending files and consequent longer adjournments have brought about a general rise in the duration of cases.

*Punjab.*—The figures for 1910 show that the tendency for institutions to rise in the Punjab has received a check, a decrease of 20,000 cases being recorded, and the number of cases disposed of exceeded the number of fresh institutions by more than 1,200. The average duration of cases was slightly higher than in the previous year.

*Bombay.*—There was a decrease in the total number of civil suits decided during the year in Bombay, and the balance which remained pending was considerably larger than at the end of 1909, amounting to 33·7 per cent. of the total number for disposal. The average duration of contested suits rose from 157 to 177 days, that of uncontested suits remaining about the same.

*Madras.*—In Madras the total number of suits instituted (442,732) showed an increase of 17,948 cases on the figures for 1909. This was in part due to the

* The period covered by this chapter is the year ending 31st December 1910.

provisions of section 31 of the Indian Limitation Act, 1908, by which the period of limitation for suits by a mortgagee for sale or foreclosure was extended from 12 to 60 years or up to the 31st December 1910, whichever limit was reached first. In suits disposed of in 1910, excluding those compromised or disposed of without trial, the percentage of plaintiffs who succeeded in obtaining decrees for the whole or part of the relief claimed by them was 73·48, which is higher than in any of the preceding five years. The number of cases instituted in village courts was greater than in any previous year.

*Burma.*—In Burma the decrease in the number of suits instituted in the courts, which was noticed in 1908 and 1909, continued during the year under review, but was less marked. There was a slight decrease in the pending file. In spite of the decrease in the number of suits, the average duration of cases remained practically stationary in Upper Burma and increased in Lower Burma.

*North-West Frontier Province.*—There was a decrease of litigation during the year in the North-West Frontier Province, the number of suits instituted falling from 25,585 to 24,336. Of 28,900 suits for disposal 92 per cent. (as in 1909) were disposed of. The average duration of cases remained about the same.

*Coorg.*—Judged by the number of suits filed and decided in Coorg in 1910, the work of the civil courts continues to increase, but the additions are entirely in the small cause list. The average value of all suits, Rs. 73, was the lowest on record. The number of appeals filed was slightly larger than in the past two years, but only 21 per cent. of them met with any success.

## Crime and Police.

*Madras.*—The season was generally slightly better than that of 1909, but, although food-grains were somewhat cheaper, the decrease in the volume of grave crime was very small. Except under house-breaking, which showed an increase of 86 cases, there was a decline under every head as well as in the total grave crime, but the figures are considerably above those for 1907, when food grains were considerably dearer than in 1910. The total number of true cases of cognisable* crime fell from 50,278 to 48,726. The number of murders was 605, as compared with 620 in the previous year. Robberies decreased by 68, and there was a satisfactory falling off in the number of dakaities. There were no serious riots in the Presidency. There has again been a decline in detection under every head of grave crime, as well as under cognisable crime taken as a whole. The great want felt during the year was the shortage of good inspectors for re-allocated circles. This, together with the inexperience of the new sub-inspectors, is inevitable in the present transition stage. The percentage of murders and dakaities detected fell to 15·6 and 14·1 respectively; the proportion of true cases detected from 29·7 to 27·7. Property lost during the year was valued at £123,745, of which 29·1 per cent. was recovered.

The total sanctioned strength of the police was 32,207. The increase of 117 on the figure for the previous year was sanctioned in connection with the formation of a new district. Difficulty in recruiting continued in consequence chiefly of the increasing demand for labour and the high prices prevalent. There was a small increase in the percentage of punishments for all offences, but an increased number of rewards were given. The number of casualties was 2,883, as against 2,077 in 1909. The proportion of illiterate constables was 11·7 per cent. The total cost increased by £39,893 to £533,918, mainly owing to the further progress made in reorganisation. The work of administrative reform carried out in accordance with the orders of the Government of India on the recommendations of the Indian Police Commission is now nearly complete. The cost has been heavy, but an improved stamp of investigating officer—men of better education and higher moral standards—has been obtained; the necessary experience time alone can give.

*Bombay.*—In Bombay the total number of cognisable cases reported during the year fell to 33,454, there being decreases under all heads of offences, except murder and cognate offences and robbery. Complaints for disposal, including those pending from the previous year, totalled 38,553, as against 39,618 in 1909, and all but 1,963, those in which investigation was refused, remained for investigation. Decisions were given in 31,957 cases, or 1,751 less than in 1909. The percentage of

* Cognisable offences are those for which the police can arrest without a warrant.

convictions to true cases disposed of showed a further decrease of ·1 to 44·7. The value of property stolen during the year, in connection with cognisable crime, was estimated at £92,720, an increase of £1,007 on the figures for 1909; but there was an improvement in regard to the recovery of stolen property, 35·6 per cent., as against 30·2 per cent. in 1909, being recovered.

The total strength of the police force in the Presidency was 24,104, an increase of 107, and the total cost £421,153, an increase of £7,495, due chiefly to the introduction of further measures of reorganisation. Difficulty in recruiting continued during the year under review. The number of punishments rose from 3,094 to 3,181, an increase for which additions made to the force were mainly responsible; and that of rewards from 6,392 to 7,435. A percentage of 55·9 were able to read and write, as against 54·7 in 1909. Resignations numbered 1,202, or 5·1 per cent., of the actual strength; the corresponding figures in 1909 were 1,048 and 4·5 respectively. The health of the force on the whole deteriorated, but the morale of the force and the quality of its work are improving.

*Bengal.*—In Bengal the year ended with a comparatively clean sheet in respect of political crime, but events of the first quarter of 1911 unfortunately demonstrated that no relaxation of vigilance is yet justifiable. The Criminal Investigation Department maintained its record of usefulness, thefts from running trains, to which the special attention of the Department was called in 1909, being reduced from 1,540 to 942. The collection and classification of information in the Criminal Intelligence Bureau was completed during the year, and systematic measures are now being adopted for the dissemination of criminal intelligence. With regard to ordinary crime, the number of cognisable offences showed a further satisfactory decrease of 8 per cent. The decline was again most marked in offences against property, and, as in 1909, is attributed mainly to improved agricultural conditions and rigorous prosecution of "bad livelihood" cases. Serious offences against the person increased by over 400 cases. The strength of the force increased by 77 to 22,494, and the cost by £1,442 to £453,779. Ninety-eight per cent. of the officers and 39 per cent. of the men were able to read and write.

*United Provinces.*—The continuance of agricultural prosperity in the United Provinces operated as a factor to reduce the criminality of the year under review to the lowest figure of the last 13 years. Excluding public nuisances and offences against special and local laws, the total number of reported cognisable offences found to be genuine was 119,968, as against 126,830 in 1909, and this diminution was the more satisfactory as it spread over the field of professional crime. The number of dakaities reported fell from 605 to 475, and that of true cases of murder from 455 to 454. The number of cases reported by village headsmen decreased by 49 to 6,242.

With regard to the police, the punishment roll of officers was somewhat lighter than in the previous year, while departmental punishments in the case of the men were more numerous. The percentage of literate members of the force fell from 26·2 to 25·6.

*Punjab.*—In the Punjab cognisable cases rose from 40,482 to 41,320. This increase is not in itself serious, especially when it is remembered that the total is less than that of any of the four preceding years, except 1909. A more disquieting feature of the year was the large increase in the more serious classes of offences. Murders again decreased from 421 to 409, but burglaries rose from 12,604 to 13,241, and dakaities from 36 to 48. Generally speaking, the appointment of honorary magistrates has facilitated the speedy disposal of cases, and their courts have been taken advantage of as far as possible. The health of the force remained satisfactory, and an increased number of punishments is explained by insistence on a higher standard of work, morals, and discipline. The proportion of educated men remained at slightly over 30 per cent.

*Eastern Bengal and Assam.*—Statistics for the year under review show that there were in Eastern Bengal and Assam decreases under the heads of dakaity, riot, and robbery. An increase in burglary and a decrease in theft cases are probably due in part to a better classification and to the gradual abandonment by sub-inspectors of the practice of minimising offences escaping detection. The number of murders reported (384) was the same as in 1909. Good progress was made in the Criminal Investigation Department during the year, a noticeable feature in the work being the success attending the institution of gang cases.

As regards the police, the state of recruiting amongst locals remained unsatisfactory, but there was a general improvement in the conduct of the force, and the

number of rewards increased. Three meetings were held during the year between police officers of different districts under the presidency of the Inspector-General or Deputy Inspector-General. The discipline and efficiency of the military police continued to be good, but resignations numbered 66 as against 49 in 1909.

*Central Provinces and Berar.*—The chief features of 1910 were the marked decrease in the volume of cognisable crime (which, excluding unimportant nuisance cases and offences under special and local laws, amounted to 16 per cent.), the continued improvement in the reporting and registration of crime, the activity of the Berar police in applying preventive provisions of the law against habitual criminals and their success in dealing with dakaities, and the decline, amounting almost to an entire cessation, of seditious agitation. Murders again decreased from 246 to 213, and dakaities from 125 to 63. The police of the neighbouring states co-operated very readily with the local police in dealing with organised crime. The health of the force was not so good, but punishments were fewer and rewards more numerous. Most of the reforms advocated by the Indian Police Commission have been carried out, entailing an actual expenditure of about £77,000.

*Burma.*—In Burma the police were called upon to deal with a considerable increase in crime, more especially violent crime, and there were no abnormal conditions prevailing during the year to which this outburst of criminality could be attributed. The number of true cases of cognisable crime rose from 38,503 to 40,589. The proportion of detected to undetected cases and the percentage of stolen property recovered remained practically the same as in 1909. Village headmen continued to render valuable assistance in the detection of crime and the arrest of offenders. Several cases occurred in which resistance was offered to armed bands of dacoits and robbers by residents of villages under the leadership of their headmen. There was an improvement in recruiting during the year, coupled with a decrease of resignations and discharges from the force and an increase in the average length of service. The conduct of the men improved; the percentage of those able to read and write remained at 85.

*North-West Frontier Province.*—In the North-West Frontier Province a grave increase in crime was recorded, which it is not possible to assign to any one cause, as the conditions favourable to the commission of violent crime with comparative impunity varied in different parts of the province. The discredit of the increase of crime and the comparatively small proportion of convictions and punishments cannot be laid at the door of the police, who are much more efficient than they were a few years ago. The fault appears to lie in the application of a criminal law unsuited to local needs. The number of true cognisable cases rose from 4,231 to 4,679. Murders increased from 297 to 310, and dakaities from 66 to 101. The police in the ranks of the upper subordinates were practically up to full strength, and a high educational standard was maintained. With the rank and file matters were not so satisfactory; there were 326 resignations and discharges throughout the year, and nearly 50 per cent. of the constables had less than three years' service.

*Coorg.*—In Coorg heinous crime in 1910 was slightly below the average, but cognisable offences, as a whole, though less than in the previous year, exceeded by about 7½ per cent. the average of the past decade. Convictions in cognisable cases rose by about 9 per cent. The discipline of the force was satisfactory, and the number of punishments moderate. Only seven illiterates remained in the ranks.

## Criminal Justice.

*Madras.*—In Madras the total number of original cases instituted in the criminal courts showed a considerable decrease on the number of the previous year, and a very large decrease on the average of the five preceding years. The decrease affected almost all classes of courts, and the number of cases brought before village magistrates (10,660) was less than in any year since 1906. The total number of offences reported decreased by 4,074 to 335,390, but the number of offences under special and local laws was greater by 3,318 than in 1909. Sixty-eight death sentences were referred to the High Court for confirmation; of these, 45 were confirmed, 12 reduced, and 11 reversed.

*Bombay.*—The number of offences reported and brought to trial in Bombay again showed a slight increase as compared with the previous year; of the total number of offences returned as true, about 39 per cent. fell under the Indian Penal Code. 48·2 per cent. of the number of persons brought to trial were acquitted or discharged.

Sentences of imprisonment and fine increased by about 3,000 and 7,000 respectively, while sentences of death and transportation remained practically stationary. Offences against the State rose from 6 to 15; 20 persons were acquitted or discharged, and 43 convicted. Proceedings in appeal resulted in a reversal of the sentence in 16·9 per cent. of the cases.

*Bengal.*—The number of criminal offences reported in Bengal (254,452) showed a decrease of 3,824 as compared with 1909, and in 17·2 per cent. of the number cases were found false or complaints dismissed. The number of persons under trial for offences against the State, however, increased from 50 to 85, of whom 21 were convicted, 17 acquitted or discharged, and 47 remained under trial at the end of the year. One case, involving nine persons, remained from 1909, and six cases, involving 92 persons, were committed to the High Court for trial by Special Benches under Act XIV. of 1908. Of these, three remained under trial at the close of the year; and in the cases disposed of the average duration from the date of commitment was 89 days.

*Eastern Bengal and Assam.*—In Eastern Bengal and Assam the number of persons under trial for offences against the State increased from 17 to 48. Of these, three were convicted and one was acquitted or discharged, and 44 remained under trial. The number of criminal offences reported was greater by over 3,000 than in 1909; 112,324 fell under the Indian Penal Code, and 22,406 under special and local laws. Cases were found false or complaints dismissed in 35·5 per cent. of the number reported. There were no cases committed to the High Court for trial by Special Benches under Act XIV. of 1908.

*Punjab.*—In the Punjab the main features of the year were an increase in the more serious classes of offences and the growing lawlessness in the central districts. The total number of offences reported exceeded by 7,000 the figures for 1909. The capital sentence was confirmed by the Chief Court in 83, and commuted in 30, cases. As in the previous year, 58 per cent. of the appeals preferred and 72 per cent. of the petitions for revision were rejected. Complaints of perjury on the part of witnesses are still loud. In many cases independent witnesses are not produced, and this leads not seldom to a failure of justice.

*North-West Frontier Province.*—There was a very substantial increase in the amount of crime committed in the North-West Frontier Province during the year under review. Twenty-five per cent. of the total number of offences reported were dismissed *in limine*. The death penalty was inflicted in 16 cases, as compared with 26 in 1909. The number of references to Councils of Elders rose from 220 to 298, and the percentage of convictions from 40 to 49.

*United Provinces of Agra and Oudh.*—In the United Provinces the features of the year were a decrease in serious, and an increase in minor offences under the Indian Penal Code. Sentences of death rose from 124 to 155, and of transportation from 322 to 325; on the other hand, sentences of rigorous imprisonment and of whipping decreased considerably. The average duration of cases remained about the same.

*Coorg.*—The number of cases tried by the criminal courts in Coorg rose by 183 to 1,555, but as of this increase 173 were breach of contract cases no adverse inference as to the criminal tendencies of the population can be drawn from these figures. The percentage of convictions rose slightly, and the number of appeals was again very low.

*Central Provinces and Berar.*—In the Central Provinces the number of offences reported (36,480) was the lowest for the last five years, decreases occurring in cases both under the Indian Penal Code and under special and local laws. The continued prosperity of 1910 caused a further fall in offences against property. Cases of defamation again increased, and a marked rise occurred in the number of offences affecting public health, decency, and morals, and in cases of contempt of authority. The percentage of convictions was higher than in any of the last five years, except 1908. No less than 30 per cent. of the criminal work was done by the unpaid magistracy, and in some cases retired officers on pension have rendered very valuable service in this direction.

*Burma.*—There was a general increase in crime in Burma during 1910, but the figures show that it was confined almost entirely to Lower Burma. The total number of offences reported was 96,978, of which about 85 per cent. were returned as true cases. A regrettable feature of the year was the prevalence of cattle theft. Thirty-five boys were sent to reformatory schools, as against eight in 1909.

## JAILS.

The variations of the jail population in the whole of India during the last five years are shown in the following table :—

| — | 1910. | 1909. | 1908. | 1907. | 1906. |
|---|---|---|---|---|---|
| Jail population of all classes on 1st January | 103,363 | 103,784 | 101,336 | 99,065 | 98,244 |
| Admissions during the year | 474,241 | 489,051 | 520,377 | 459,288 | 480,098 |
| Aggregate | 577,604 | 592,835 | 621,713 | 558,353 | 578,342 |
| Discharged during the year from all causes | 475,183 | 489,481 | 517,930 | 457,012 | 479,280 |
| Jail population on 31st December | 102,421 | 103,354 | 103,783 | 101,341 | 99,062 |
| Convict population on 1st January | 92,605 | 91,819 | 89,457 | 89,035 | 88,344 |
| Admissions during the year | 154,973 | 160,391 | 173,175 | 153,759 | 163,956 |
| Aggregate | 247,578 | 252,210 | 262,632 | 242,794 | 252,300 |
| Released during the year | 154,769 | 157,076 | 168,599 | 160,439 | 160,022 |
| Casualties, &c. | 3,406 | 3,528 | 3,629 | 2,893 | 3,246 |
| Convict population on 31st December | 91,271 | 91,606 | 90,404 | 89,462 | 89,032 |

A decrease in the number of prisoners admitted to jail in the course of the year occurred in Eastern Bengal and Assam, Bengal, United Provinces, Central Provinces, Madras, and Coorg, and was most marked in Bengal. The daily average number of prisoners fell by about 1,000.

Over one half of the total number of convicts received in jails during the year came from the classes engaged in agriculture or cognate pursuits. About 128,000 were illiterate. The percentage of previously convicted prisoners fell from 17·1 to 16·9, while there was an increase of 84 in the number of youthful offenders. The following statistics show, in round figures, the nature and length of the sentences imposed during the year :—Not exceeding one month, 43,500 ; above one month and not exceeding six months, 58,000 ; above six months and not exceeding one year, 28,000 ; above one year and not exceeding five years, 20,000. The remainder were major sentences, viz. :—2,253 for terms above five and not exceeding ten years ; 184 for terms exceeding ten years ; 1,605 to transportation beyond seas ; and 612 to death.

Consonantly with the decrease in the average daily strength, the number of offences committed by convicts fell ; and there was a decrease of about 4,000 in serious offences dealt with by major punishments. The figures for the different provinces are given in the following table :—

| Province. | 1910. | | | 1909. | | | 1908. | | |
|---|---|---|---|---|---|---|---|---|---|
| | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. | Daily average Population. | Offences dealt with by Criminal Courts. | Offences dealt with by Superintendents. |
| Madras | 10,542 | 9 | 13,199 | 10,737 | 27 | 13,715 | 10,517 | 122 | 13,038 |
| Bombay | 7,997 | 22 | 22,455 | 7,535 | 47 | 21,641 | 7,913 | 33 | 20,296 |
| Bengal | 13,163 | 14 | 27,814 | 15,066 | 17 | 32,478 | 14,462 | 37 | 28,715 |
| United Provinces | 23,165 | 4 | 34,577 | 23,944 | 4 | 35,058 | 25,363 | 14 | 37,265 |
| Punjab | 10,949 | 50 | 38,994 | 10,514 | 61 | 51,867 | 10,766 | 56 | 56,892 |
| Burma | 13,929 | 32 | 34,676 | 12,954 | 24 | 37,281 | 13,164 | 22 | 40,878 |
| Eastern Bengal and Assam | 7,123 | 39 | 8,039 | 6,868 | 33 | 6,576 | 6,884 | 44 | 6,954 |
| Central Provinces and Berar | 3,661 | 32 | 18,036 | 3,833 | 25 | 18,405 | 3,536 | 16 | 9,975 |
| North-West Frontier Province | 1,044 | — | 1,479 | 974 | 1 | 1,169 | 1,040 | 2 | 1,371 |
| Coorg | 56 | — | 45 | 74 | 2 | 60 | 81 | — | 17 |
| | 91,629 | 202 | 199,314 | 92,499 | 241 | 218,250 | 93,726 | 346 | 215,401 |

The total number of corporal punishments again showed a decrease. The total number of cases in which penal diet (with and without solitary confinement) was prescribed was 7,918 as compared with 8,652 in the preceding year.

Total expenditure fell from £559,918 to £528,737, and total cash earnings from £103,996 to £98,245 ; there was, consequently, a decrease of £25,430 in the net

cost to Government. Excluding Coorg, the provinces in which the average cost of maintenance was highest were Eastern Bengal and Assam, Bengal, Bombay, and the Central Provinces.

In Indian jails the arrangements for counteracting the influence of adverse climatic and other conditions and for preventing the spread of communicable diseases are being more extensively and thoroughly applied every year, and the result is that while the death-rates among the general population are rising those among the prisoners are falling, and that while the rates among others fluctuate from year to year, the fluctuations in the jail death-rates are becoming less frequent and less marked. The prison death-rate fell from 22·85 to 18·95, the decrease extending through every province except the Punjab, the North-West Frontier Province, Eastern Bengal and Assam, and the Central Provinces. Despite the unusually heavy rainfall, especially during the latter half of 1910, the statistics of malaria among the prison population were exceptionally favourable. Cases of tubercle of the lungs decreased in all provinces, except Eastern Bengal and Assam, the Central Provinces, and the Punjab. In the Central Provinces the admission of two batches of very unhealthy prisoners from the Bastar State raised the death-rates all round, and in the Punjab overcrowding existed to such an extent as to make an increase inevitable. With the exception of respiratory diseases, all the most common causes of sickness and death were less prevalent and less fatal than in 1909.

*Penal Settlement at Port Blair.*—The convict population of the Andamans at the end of the year 1910–11 was 11,938, being about 600 less than at the end of the previous year. The number of convicts received from India and Burma during the year was 789, as against 767 in 1909–10. There were 24 escapes, and 11 recaptures; the corresponding figures for the preceding year were 71 and 49. There was a decrease of 500 in the number of offences, and the number of corporal punishments also fell from 40 to 28. The net cost of the Settlement was £81,414, and the net cost of each convict about £6 10*s.*, against £89,515 and £6 16*s.*, respectively, in the previous year.

# CHAPTER III.

## FINANCE.


| | |
|---|---|
| Form of Accounts. | Capital Outlay on Public Works. |
| Gross Revenue and Expenditure. | Debt. |
| Net Revenue and Expenditure. | Currency and Exchange. |
| Provincial Finance. | Banks. |
| Home Charges. | |


(*For further details, see Statistical Abstract for British India, Tables* 44 *to* 89 *and* 97.)

### Form of Accounts.

The accounts of the Government of India show the transactions in India in rupees: the totals of these transactions are then converted into pounds, at the rate of Rs. 15 = £1: the sterling transactions in England are next stated: and the last two sets of figures are added together, so as to show in pounds the combined transactions in India and in England. The comparatively small sums which have to be brought to account owing to the facts that the remittances to defray the net expenditure in England are not effected at exactly sixteenpence to the rupee are included in a single line under the head of Exchange.

### Gross Revenue and Expenditure.

The Gross Revenue and Expenditure of British India in 1909–10 and 1910–11 were as follows:—

| | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Revenue - - - - - | 74,593,495 | 80,682,473 |
| Expenditure - - - - | 73,986,854 | 76,746,186 |
| Surplus - | £606,641 | Surplus - £3,936,287 |

In these figures all receipts are included in the total of revenue and all outlay in the total of expenditure, with the one exception that the working expenses of railways and the surplus profits paid to certain railway companies are treated not as expenditure but as a deduction from Revenue. The financial position of the Government can, however, be much better appreciated by reference to the following table of Net Revenue and Expenditure, in which the interest charges as well as the working expenses of the Railways, the interest charges and working expenses of Irrigation Works, the cost of the cultivation and manufacture of Opium, and the charges against other revenue-earning departments (excluding cost of collection) are treated as deductions from revenue, and the receipts of spending departments are treated as deductions from expenditure.

## NET REVENUE.

| | 1909-10. | | 1910-11. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Land Revenue, &c.: | | | | | | |
| Land Revenue | 20,554,980 | | 20,112,161 | | *442,819* | |
| Forest | 1,728,885 | | 1,822,988 | | + 94,103 | |
| Tributes from Native States | 389,355 | | 408,694 | | + 19,339 | |
| | | 22,673,220 | | 22,343,843 | | *329,377* |
| Opium: Net Receipts | — | 4,195,614 | — | 6,271,531 | — | +2,075,917 |
| Taxation: | | | | | | |
| Salt | 3,054,647 | | 2,916,767 | | *137,880* | |
| Stamps | 4,496,267 | | 4,757,510 | | + 261,243 | |
| Excise | 6,462,226 | | 6,957,379 | | + 495,153 | |
| Provincial Rates | 538,300 | | 552,860 | | + 14,560 | |
| Customs | 4,855,982 | | 6,497,001 | | +1,641,019 | |
| Income-Tax | 1,546,206 | | 1,583,683 | | + 37,477 | |
| Registration | 429,325 | | 424,645 | | − *4,680* | |
| | | 21,382,953 | | 23,689,845 | | +2,306,892 |
| Commercial Undertakings: | | | | | | |
| Post Office | − *353* | | 46,030 | | + 46,383 | |
| Telegraph | − *89,582* | | 20,327 | | + 109,909 | |
| Railways | 824,922 | | 2,017,496 | | +1,192,574 | |
| Irrigation | 606,300 | | 584,387 | | − *21,913* | |
| | | 1,341,287 | | 2,668,240 | | +1,326,953 |
| Mint | — | − *17,805* | — | 103,741 | — | + 121,546 |
| Exchange | — | 44,481 | — | 70,084 | — | + 25,603 |
| Total Net Revenue £ | | 49,619,750 | | 55,147,284 | | +5,527,534 |

## NET EXPENDITURE.

| | 1909-10. | | 1910-11. | | Increase (+) or *Decrease* (−). | |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ |
| Debt Services (excluding amounts charged under Railway Revenue Account and Irrigation). | — | 930,702 | — | 703,463 | — | *227,239* |
| Military Services: | | | | | | |
| Army | 17,923,453 | | 18,073,131 | | + 149,678 | |
| Marine | 377,697 | | 354,080 | | − *23,617* | |
| Military Works and Special Defence Works. | 811,173 | | 837,831 | | + 26,658 | |
| | | 19,112,323 | | 19,265,042 | | + 152,719 |
| Collection of Revenue | — | 6,021,503 | — | 6,114,457 | — | + 92,954 |
| Civil Services: | | | | | | |
| Civil Departments | 13,039,893 | | 13,720,244 | | + 680,351 | |
| Miscellaneous Civil Charges | 4,146,287 | | 4,202,960 | | + 56,673 | |
| Civil Works (including Railways charged to Provincial or Local Revenues). | 3,868,365 | | 4,243,629 | | + 375,264 | |
| | | 21,054,545 | | 22,166,833 | | +1,112,288 |
| Famine Relief and Insurance | — | 1,000,000 | — | 1,000,000 | — | — |
| Provincial Adjustments: | | | | | | |
| 1. Charge against Revenue of the year arising from increase of Provincial Balances. | — | 894,036 | — | 1,961,202 | — | +1,067,166 |
| 2. Diminution of the Charge against Revenue of the year, owing to Expenditure being met from Provincial Balances. | — | — | — | — | — | — |
| Total Net Expenditure charged against Revenue. | | 49,013,109 | | 51,210,997 | | +2,197,888 |
| Surplus (+) or Deficit (−) | | + 606,641 | | +3,936,287 | | +3,329,646 |

Thus there was in 1910-11, as compared with 1909-10, an increase of net revenue of £5,527,534 and an increase in net expenditure of £2,197,888. Detailed explanations of the figures of revenue and expenditure are annually laid before Parliament in the Financial Statement of the Government of India and in the

Explanatory Memorandum by the Secretary of State. It will be sufficient here to refer only to the more important facts specially affecting the revenue and expenditure of 1910–11.

*Land Revenue.*—The decrease in land revenue in 1910–11 as compared with 1909–10 was chiefly owing to the fact that the receipts of the latter year had been swollen by famine arrears due in respect of 1908–9.

*Opium.*—In accordance with arrangements with the Chinese Authorities (*see* Parliamentary Paper, Cd. 3881 of 1908), the number of chests of opium exported from India has been limited by the Government of India since 1908. The precise conditions of the agreement in this respect are described in Chapter V. (*see* page 41). The revenue, however, in 1910–11 actually exceeded that of 1909–10 by more than £2,000,000; for owing to the increased demand in China for the reduced supplies of Indian opium an average price of Rs. 2,892 per chest of Bengal opium was realised at the Calcutta auctions as compared with Rs. 1,612 in 1909–10.

*Customs.*—In view of the prospective extinction of the opium trade with China, and of the increasing demands for expenditure on education, sanitation, and other objects, it was decided in 1910 to impose additional taxation, chiefly in the form of enhanced duties on liquors, tobacco, silver, and petroleum. The increase in the Customs receipts in 1910–11 was mainly due to this cause.

*Railways.*—There was a net receipt from this source in 1910–11 of £2,017,496 as compared with £824,922 in 1909–10, but as in the latter year Indian railways were only just recovering from the effects of the acute commercial and agricultural depression of 1908–9 such a comparison is not to be pressed. Compared, however, with 1907–8, the last previous normal year, the receipt of 1910–11 shows a satisfactory increase of £454,494.

## Provincial Finance.

Under the system of decentralisation of finance, begun by Lord Mayo in 1870 and subsequently developed by successive stages, the Government of India assigns to the Provincial Governments fixed shares of the revenue collected by them under certain heads. From the revenue so assigned the Provincial Governments are required to meet the whole of the expenditure within their respective provinces under certain heads, and a portion of the expenditure under other heads. The revenue retained by the Government of India for its own purposes and for meeting the expenditure incurred by the Secretary of State in England is described in the accounts as Imperial, and that which is assigned to the Provincial Governments is described as Provincial. The expenditure is similarly classified. The Provincial Settlements, by which the classification into Imperial and Provincial of the various items of revenue and expenditure and the ratio of division of the divided heads are governed, have been placed on a quasi-permanent basis with the object of giving to the Provincial Governments as large an interest as possible in the careful collection of revenue and in economy of expenditure. The principal heads of revenue which are wholly Imperial are Opium, Salt, Customs, Post Office, Telegraph, Mint, Exchange, and Railways; the principal divided heads being Land Revenue, Irrigation, Stamps, Excise, Assessed Taxes, and Forests. On the expenditure side of the accounts the charge for Military Services and the charges under certain minor heads (Territorial and Political Pensions, Ecclesiastical, &c.) are entirely Imperial; "General Administration" is divided; most other important heads of expenditure are provincial.

The net revenue of 1909–10 and 1910–11 and the expenditure charged against the revenue of those years were divided into Imperial and Provincial as follows:—

| | 1909–10. | | | 1910–11. | | |
|---|---|---|---|---|---|---|
| | Imperial. | Provincial. | Total. | Imperial. | Provincial. | Total. |
| | £ | £ | £ | £ | £ | £ |
| Net Revenue - | 29,218,939 | 20,400,811 | 49,619,750 | 32,928,249 | 22,219,035 | 55,147,284 |
| Net Expenditure - | 28,612,298 | 20,400,811 | 49,013,109 | 28,991,962 | 22,219,035 | 51,210,997 |

The equilibrium between Provincial Revenue and Provincial Expenditure, which is shown in these figures, is due to the fact that, if the Provincial Governments spend less in any year than their income, the saving is added to their balances and treated in the general accounts prepared by the Government of India as though it had been spent, and that similarly excess expenditure by Provincial Governments, being met from their balances, is not charged in the accounts prepared by the Government of India against the revenues of the year. In 1909–10 the Provincial Governments added to their balances the sum of £894,036, and in 1910–11 the sum of £1,961,202.

*Contribution by each Province towards Expenditure of the Central Government.*

The following table shows for each province separately the amount by which the total revenue collected therein (whether classified in the accounts as Imperial or Provincial) exceeds or falls short of the total expenditure incurred therein, and thus indicates the extent to which each province contributes towards the expenditure of the Government of India and the Secretary of State, or draws upon the general revenues :—

| Provinces, &c. | 1909–10. | | 1910–11. | |
|---|---|---|---|---|
| | Excess of Revenue. | Excess of Expenditure. | Excess of Revenue. | Excess of Expenditure. |
| | £ | £ | £ | £ |
| Bengal | 7,111,235 | — | 9,905,421 | — |
| Eastern Bengal and Assam | 957,801 | — | 652,373 | — |
| United Provinces | 3,256,201 | — | 3,005,516 | — |
| Punjab | 1,674,449 | — | 1,255,578 | — |
| Burma | 2,238,439 | — | 2,221,465 | — |
| Central Provinces and Berar | 325,362 | — | 308,083 | — |
| Madras | 4,705,314 | — | 4,538,970 | — |
| Bombay | 4,773,105 | — | 4,926,962 | — |
| North-West Frontier Province | — | *309,456* | — | *370,407* |
| India, General | — | *5,714,100* | — | *3,901,968* |
| England | — | *18,411,709* | — | *18,605,706* |
| Net result | Surplus £606,641 | | Surplus £3,936,287 | |

## Home Charges.

The net expenditure in England chargeable to revenue, as shown in the preceding table, may be classified under the following principal heads :—

| | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Interest and management of debt, and payment of interest and annuities on account of railways and irrigation works. | 10,647,088 | 10,760,744 |
| Payments in connection with Civil Departments in India | 125,644 | 128,805 |
| India Office (excluding pensions) | 201,860 | 179,884 |
| Army and marine effective charges | 979,536 | 1,055,325 |
| Stores of all kinds charged against revenue | 1,059,432 | 1,039,758 |
| Furlough allowances | 965,790 | 967,009 |
| Non-effective charges (pensions and gratuities) | 4,432,359 | 4,474,181 |
| Total £ | 18,411,709 | 18,605,706 |

## Capital Outlay on Public Works.

The total capital outlay on railways and irrigation works during the two years was as follows :—

| | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Amount supplied by State borrowing or from the Cash Balances, without being charged against the Revenue of the year :— | | |
| State Railways | 3,862,191 | 6,620,927 |
| Irrigation Works | 1,052,349 | 1,203,888 |
| Amount met by Debenture Stock issued by Railway Companies | 2,459,426 | 2,294,278 |
| Amount defrayed from Revenue : | | |
| Provincial and local Railways | 1,245 | 795 |
| Preliminary Railway expenditure not originally charged to construction | 13,708 | — |
| Protective Railways | 12,015 | 36,895 |
| Protective Irrigation Works | 432,889 | 359,674 |
| Other Irrigation Works* | 11,765 | 6,708 |
| Total Direct Outlay by the State | 7,845,588 | 10,523,165 |
| Outlay by companies guaranteed or subsidised by Government | 2,063,077 | *1,469,278* |
| Branch lines not on firm guarantee | 54,905 | 93,315 |
| Total Capital Outlay on Railways and Irrigation £ | 9,963,570 | 9,147,202 |

* Excluding capital outlay on the minor works, which is met from revenue.

## Debt.

*Amount of Debt.*—The total debt of India on the 1st April 1910 was :—

| | £ |
|---|---|
| In England | 176,105,911 |
| In India, Rs. 1,36,84,33,105, equivalent, at 1*s.* 4*d.* the rupee, to | 91,228,874 |
| Total | £267,334,785 |

1910–11.—In England £1,000,000 Sterling Bills were issued in April 1910 at an average price of £96 9*s.* 2*d.*, and £2,500,000 in June at an average price of £96 18*s.* 6¼*d.*, both issues being for 12 months and in replacement of Bills falling due. In October an issue of £4,000,000 3½ per cent. India Bonds, redeemable by annual drawings in eight years, was made at an average price of £99 11*s.* 7¼*d.*, for the purpose partly of discharging the capital stock of the Indian Midland Railway Company on the determination of their contract, and partly of discharging debentures of the Madras and Indian Midland Railway Companies falling due during 1911–12. Sterling Bills to the amount of £2,500,000 became due on 1st December 1910, and bills to the amount of £1,500,000 were issued on that date in partial replacement at an average price of £96 14*s.* 7*d.* In March 1911 an issue of £3,500,000 3½ per cent. India Stock was made at a fixed price of £96 per cent. In India a 3½ per cent. rupee loan of 1½ crores (£1,000,000) was issued in July 1910 at an average price of Rs. 96.1.3.

The total debt outstanding on 31st March 1911 was as follows :—

| | £ |
|---|---|
| In England | 182,998,335 |
| In India, Rs. 1,38,09,72,155, equivalent at 1*s.* 4*d.* the rupee to | 92,064,810 |
| Total | £275,063,145 |

*Classification of the Debt.*—The total debt is classified in the accounts as (1) Public Works Debt (2) Ordinary Debt. The amount entered as belonging to the former category is the equivalent of the total capital expenditure which has been incurred by the State on public works, together with the amount advanced to railway companies for capital expenditure; the "Ordinary Debt" consists of the remainder of the debt. In any year in which, owing to the use of surplus revenue or deposits for the construction of public works, the capital expenditure of the year

exceeds the amount of debt incurred in the year, the effect of this system of classification is to cause a decrease to be shown in the amount of the Ordinary Debt.

The classification of the debt outstanding on the 31st March 1910 and the 31st March 1911 was as follows:—

| | 1910. | 1911. |
|---|---|---|
| (*a*) Permanent debt:— | £ | £ |
| Debt for railways | 186,517,746 | 195,836,888 |
| Debt for irrigation works | 32,256,945 | 33,800,175 |
| Total of public works debt | 218,774,691 | 229,637,063 |
| Balance, being ordinary debt | 42,560,094 | 40,426,082 |
| Total permanent debt on 31st March | 261,334,785 | 270,063,145 |
| (*b*) Temporary debt incurred on security of India bills:— | | |
| Debt for railways | 1,500,000 | 1,500,000 |
| Debt for general purposes | 4,500,000 | 3,500,000 |
| Total debt (permanent and temporary) on 31st March | £267,334,785 | £275,063,145 |

Under the East India Loans (Railways and Irrigation) Act, 1910, the Secretary of State in Council was empowered to borrow in the United Kingdom, as and when necessary, up to £25,000,000 for the purposes of Indian public works. The grant of fresh borrowing powers was required owing to the fact that the powers granted by previous East India Loans Acts were becoming exhausted.

## Currency and Exchange.

*Currency Legislation.*—Up to 1893 the standard of value in India was silver, the rupee (180 grains of silver, eleven-twelfths fine) and the half rupee being full legal tender for the payment of debts, and the mints being open to the receipt from the public of silver for coinage without limit. From 1871 to 1893 the exchange value of the rupee (*i.e.*, the sterling rate at which bills of exchange payable in India were sold) fell almost continuously, the fall being due to the decline in the price of silver, by which the value of the rupee was necessarily governed. Apart from its effect on trade the continual fall in the rupee caused serious difficulties to the Government, because, its revenue being collected in rupees, it is compelled to provide for the greater part of its sterling payments by the sale in London for sterling of bills of exchange and telegraphic transfers payable in rupees in India, and the number of rupees required for defraying any given amount of sterling expenditure increased with each fall in the sterling rate at which bills were sold. In the period from 1871 to 1893 the rate fell from about 2*s.* the rupee (ten rupees to the £) to about 1*s.* 3*d.* the rupee (sixteen rupees to the £). In view of the embarrassment arising from this depreciation in the standard of value it was decided in 1893, in accordance with the recommendation of Lord Herschell's Committee, that silver should no longer be coined on presentation by the public, but the right was given to the public to demand from Government rupees in exchange for gold at the rate of 15 rupees for £1 without limit of amount. Silver thus ceased to be the standard of value in India (though it is still used as before as the chief material of currency); and the exchange value of the rupee ceased to coincide with the price of silver. In 1898 a Committee was appointed, under the chairmanship of the late Lord Wolverhampton, then Sir Henry Fowler, to consider certain proposals made by the Government of India for the completion of the policy adopted in 1893. Sir Henry Fowler's Committee reported in 1899, and recommended that the decisions reached on the recommendations of Lord Herschell's Committee in 1893 should be maintained, and that the English sovereign should be declared legal tender in India at the rate of one sovereign to fifteen rupees (*i.e.*, 1*s.* 4*d.* to the rupee). These recommendations were accepted by the Government. Since 1898–9 the exchange value of the rupee has remained steady at about 1*s.* 4*d.*

*Gold Standard Reserve.*—From the 1st April 1900, the net profit from the coinage of rupees has been held as a special reserve, apart from the ordinary revenue. Up to 1906 practically the whole amount was remitted to England and applied to the purchase of British Government securities, the interest realised being added to the fund and invested, but in that year it was decided that a portion of the reserve should in future be held in silver in India. In 1907–8 and 1908–9 half the profits on coinage were applied to capital expenditure on railways. In 1909–10 and 1910–11 no coinage was undertaken from purchased silver. The sum shown under the former year in the marginal table, which gives the annual amount of the profits on coinage in each year from 1900–1 to 1910–11 credited to the reserve under the arrangements above described, is made up of arrears of profit on the coinage of previous years.

| | £ |
|---|---|
| 1900–1 | 3,031,294 |
| 1901–2 | 415,100 |
| 1902–3 | 264,028 |
| 1903–4 | 2,627,575 |
| 1904–5 | 1,790,380 |
| 1905–6 | 3,677,880 |
| 1906–7 | 4,014,426 |
| 1907–8 | 1,123,603 |
| 1908–9 | 51 |
| 1909–10 | 25,190 |
| 1910–11 | — |

The constitution of the reserve on the 31st March 1911 was as follows:—

| | £ |
|---|---|
| Sterling securities (at cost price) | 15,848,469 |
| Silver (coined rupees in India) | 1,934,302 |
| Cash in England (placed by the Secretary of State in Council at short notice) | 1,477,358 |
| Total | £19,260,129 |

*Exchange and Remittance.*—During the years 1908–9, 1909–10, and 1910–11 the sale by the Secretary of State of bills and telegraphic transfers on India was as follows:—

1908–9 £14,144,545 at an average rate of 1*s.* 3·93*d.* per rupee.
1909–10 £27,444,609 „ „ 1*s.* 4·041*d.* „
1910–11 £26,212,866 „ „ 1*s.* 4·061*d.* „

The regular demand for the bills and telegraphic transfers sold by the Secretary of State is due to the fact that they enable merchants and bankers to make the payments in India which are required mainly in consequence of the normal excess of India's exports over her imports. In 1908–9 and 1909–10, however, the normal state of things was reversed in consequence of unfavourable agricultural and commercial conditions in India, and in order to support exchange the Government of India decided to sell bills payable in London in sterling. Bills of this nature were sold to the amount of £8,058,000 and £156,000 in these two years, at a fixed rate of 1*s.* $3\frac{29}{32}$*d.* the rupee.

*Coinage.*—The silver coinage at the Indian Mints was:—

| | 1909–10. Number Coined. | 1910–11. Number Coined. |
|---|---|---|
| Rupees | 20,771,397 | 87,242,454 |
| Half-rupees | 1,568,586 | 4,222,009 |
| Quarter-rupees | — | 9,056,109 |
| Eighth-rupees | 1,603,811 | 18,461,015 |
| British Dollars (for export to Hong Kong) | 5,954,218 | 5,552,910 |
| „ „ subsidiary pieces | 14,351,213 | 13,384,584 |

The rupee coinage of 1909–10 and 1910–11 was confined to the recoinage of old rupees and uncurrent coin.

The value of the copper, bronze, and nickel coinage during the two years was as follows:—

| | 1909–10. £ | 1910–11. £ |
|---|---|---|
| Copper | 2,333 | 3,333 |
| Bronze | 39,915 | 63,008 |
| Nickel | 103,333 | 167,500 |

*Paper Currency.*—Under the Indian Paper Currency Act, 1910 (II. of 1910), which consolidated and amended the law relating to Paper Currency, Notes of the following denominations, viz., Rs. 5, Rs. 10, Rs. 50, Rs. 100, Rs. 500, Rs. 1,000, and Rs. 10,000 are issued to the public. The issue of 20-rupee notes has been discontinued.

There are seven currency circles having their headquarters at Calcutta, Cawnpore, Lahore, Bombay, Karachi, Madras, and Rangoon respectively.

Prior to the passing of the Paper Currency Act of 1910 the 5-rupee note alone was legal tender throughout India and payable at any office of issue in the country; notes of higher value were legal tender only within the currency circles in which they were issued. The Act of 1910 "universalised" notes of a denominational value of 10 and 50 rupees, and thus marks an important stage in the development of the paper currency system of India. A reserve is held against the notes equal to their full value. Securities of the Government of India and of the British Government may be held as part of the reserve up to a limit of £9,333,300, of which the British Government securities may not exceed £2,667,000 (Rs. 4,00,00,000); the remainder of the reserve must be held in gold or silver coin or bullion. On the 31st March 1911 the value of notes in circulation was £36,660,400, being more by £388,100 than on the corresponding date in 1910. The constitution of the paper currency reserve was as follows:—

| | £ |
|---|---|
| Gold | 11,231,500 |
| Silver coin | 17,439,100 |
| Silver bullion | 52,500 |
| Securities of the Government of India | 6,666,700 |
| Securities of the British Government | 1,333,300 |
| | 36,723,100 |
| *Deduct* amount due on bills drawn by one circle on another | 62,700 |
| | £36,660,400 |

## Banks.

*The Presidency Banks.*—The three Presidency Banks of Bengal, Madras, and Bombay are bodies corporate, constituted under the Presidency Banks Act of 1876. This Act has been modified by a succession of other Acts, of which the most recent was passed in 1907. It regulates the constitution and management of the banks and prescribes the kind of business that they may undertake. The most important statutory restrictions are that they may not borrow out of India, nor draw, discount, buy, or sell bills of exchange, or other negotiable securities payable outside India or Ceylon, except that, when they receive interest, or the proceeds of the sale of securities, on behalf of their principals, they may draw bills of exchange or grant letters of credit, payable out of India, for the purpose of remitting such interest or proceeds at the risk of the principals. The effect of these restrictions is to prevent the Presidency Banks from dealing in foreign exchanges or otherwise employing their capital out of India.

The Presidency Banks, in accordance with the provisions of agreements into which the Government of India has entered with them, act as bankers for the Government of India, paying and receiving money on its behalf and managing the public debt; they receive in return a fixed annual payment, and a commission on the amount of the public debt which they manage. The Government also undertakes to keep a minimum balance at each bank, or, failing this, to pay interest on the deficiency.

The following table shows the extent of the business of the Presidency Banks at the end of December 1911:—

| —— | Bank of Bengal. | Bank of Madras. | Bank of Bombay. |
|---|---|---|---|
| | £ | £ | £ |
| Paid-up capital | 1,333,333 | 400,000 | 666,667 |
| Reserve | 1,193,333 | 346,666 | 706,700 |
| Public deposits | 1,526,660 | 404,214 | 719,287 |
| Other deposits | 11,296,880 | 4,045,294 | 7,361,100 |

*Banks registered under the Indian Companies Act.*—The number of joint stock companies registered as engaged in banking or loan operations in India, on 31st March 1911, was 492. The majority of these companies consist of societies with a relatively small capital.

# CHAPTER IV.

## LAND REVENUE.


| | |
|---|---|
| Land Tenures. | Revenue Assessments, &c. |
| Land Legislation. | Collection of the Revenue. |
| Revenue Surveys, Settlements, &c. | Wards' and other Estates. |


(*For further details see Statistical Abstract of British India, Tables* 45 *to* 49 *and* 122.)

The present chapter deals with Land Revenue (including revenue from Capitation Tax, Fisheries, &c.) and with subjects appertaining thereto. From time immemorial a share of the produce of the land has been the chief source of public revenue in India. Land revenue is still the mainstay of the Government, constituting about 36 per cent. of the total net revenue that accrues to the Indian Exchequer.

### Land Tenures.

Owing to its far-reaching social and political effects the proper administration of the land revenue has always been one of the chief problems of the Indian Government, and during the early years of British rule the best methods of assessment were keenly debated. In 1793 Lord Cornwallis introduced into Bengal a permanent settlement, by which the demand of the State was fixed and made for ever unalterable. Other systems were gradually evolved, and at length over the greater part of India a system of periodical settlements was established, under which the State demand is revised at recurring periods of 20 to 30 years, the latter period prevailing in all the larger provinces except the Punjab and the Central Provinces, where settlements are usually made for 20 years, and in Burma, where the ordinary term will in future be 20 years. At these settlements careful surveys are made of all holdings and records of rights in the land. The policy of long term settlements is being extended. Under the system of periodical revisions of the land assessment the State secures a share in the increased rental value arising from the general progress of the community. Of late years measures have been taken to exempt improvements from assessment, and generally to make the enforcement of the rights of the State as little burdensome as is possible to the revenue-payer. Periodical revision also affords the opportunity of reducing the assessment in villages or tracts which have declined in prosperity, and of correcting inequalities arising from any cause.

When the revenue is assessed by the State, permanently or temporarily, on an individual or community owning an estate, and occupying a position identical with, or analogous to, that of a landlord, the assessment is known as *zamindari;* where the revenue is imposed on individuals who are, or who represent, the actual occupants of holdings, the assessment is known as *ryotwari.* Under either system there may be rent-paying sub-tenants. In southern India, where most of the land is held by petty occupiers direct from the State, the occupiers have the right to retain their holdings so long as they pay the revenue due from them. In both the permanently and temporarily settled districts of northern India laws have been passed to safeguard tenant rights. The permanently settled districts, in which all holdings are *zamindari*, cover most of Bengal and Eastern Bengal, and parts of Madras and the United Provinces. As regards temporarily settled districts, *zamindari* estates, held by proprietary groups or large individual proprietors, are chiefly found in the Punjab, the United Provinces, the Central Provinces, and Orissa (Bengal), while in Bombay and Sind, Burma, Assam, Berar, and most of Madras the system of *ryotwari*, or peasant proprietors, prevails.

The appended table gives the acreage of the surveyed areas in which the various tenures prevailed during 1909–10 (in thousands of acres). The figures include waste and uncultivated areas as well as cultivated lands, and merely indicate the extent to which the two systems respectively prevail.

| Province. | *Ryotwari* (Peasant Proprietors). | *Zamindari* (Individual Proprietors or Village Communities). | | Total. |
|---|---|---|---|---|
| | | Permanently settled. | Temporarily settled. | |
| | 000 acres. | 000 acres. | 000 acres. | 000 acres. |
| Burma | 114,000 | — | — | 114,000 |
| Assam | 25,865 | 3,931 | 1,502 | 31,298 |
| Eastern Bengal | — | 21,712 | 7,004 | 28,716 |
| Bengal | — | 59,242 | 14,850 | 74,092 |
| United Provinces of Agra and Oudh | — | 7,841 | 60,575 | 68,416 |
| Punjab | — | — | 62,215 | 62,215 |
| North-West Frontier Province | — | — | 8,438 | 8,438 |
| Bombay | 44,850 | — | 3,771 | 48,621 |
| Sind | 30,252 | — | — | 30,252 |
| Central Provinces | 1,773 | — | 40,606 | 42,379 |
| Berar | 11,327 | — | — | 11,327 |
| Madras | 61,577 | 29,179 | — | 90,756 |
| Minor Administrations (Ajmere, Coorg, Manpur) | 1,043 | 959 | 735 | 2,737 |
| Total | 290,687 | 122,864 | 199,696 | 613,247 |

It will thus be seen that about 47 per cent. of the total area is held by peasant proprietors, while 20 per cent. is held by permanently settled, and 33 per cent. by temporarily settled, *zamindari* proprietors.

## Land Legislation.

*Bengal.*—Throughout the major part of the province the relations between landlord and tenant are governed by the Bengal Tenancy Act, which continued to work satisfactorily. The withholding of rent receipts and the levy of illegal exactions in the form of cesses in addition to rents have by no means ceased, but the tenants are gradually learning to know their rights and to resist illegal demands. Settlement operations have taught tenants their rights and privileges, and the general spread of education tends to the same result. During 1910–11 there was practically no serious friction between landlord and tenant. Chota Nagpur has recently come under a special agrarian law of its own, passed to amend and codify the existing laws. It is said to be working well, but cautious application is necessary at first. A special Tenancy Bill has been introduced for Orissa.

*Eastern Bengal and Assam.*—The Bengal Tenancy Act is in force in all the Eastern Bengal districts, except the Chittagong Hill Tracts. Both landlords and tenants are said to have become better acquainted with its provisions, chiefly owing to survey and settlement proceedings, the records of which are being more freely used. The landlords are apt not to furnish the receipts for rent which the Act prescribes.

*United Provinces.*—Owing to the protection afforded by the Agra Tenancy Act there has been a growth in the area occupied by tenants of 12 years' standing. Out of 20½ million acres held by ordinary tenants nearly 14 million acres are now protected, that is, the landlords are debarred from arbitrary ejectment. The area protected increased by 151,198 acres in 1909–10.

The Bundelkhand Alienation of Land Act, 1903, which is framed on the lines of the Punjab Land Alienation Act, continues to work satisfactorily. Its object is to place restrictions on the sale or other permanent alienation of land by the agricultural castes to the non-agricultural classes. Sales of land as between agriculturists and non-agriculturists showed a net transfer of land to the possession of the former in the districts to which the Act applies. The effect of the Act on credit is a moot point, but its general effect has undoubtedly been beneficial. Attempts to evade the Act were few.

*Punjab.*—The Punjab Land Alienation Act of 1900 was designed to protect hereditary land-owning tribes from expropriation by money-lenders. Its effect in preventing the transfer of land from agriculturists to non-agriculturists is undoubted, though the actual figures are a matter of uncertainty. More than half the present mortgaged area in the province is mortgaged to mortgagees who are themselves agriculturists. The anxiety of all classes to be notified under it disposes of the allegation that credit has been impaired. A system of evading the Act is causing

some trouble; a mortgage is effected in the name of a landholder, whereas the real mortgagee is a money-lender. Steps are being taken to prevent this.

*North-West Frontier Province.*—The Punjab Alienation of Land Act, 1900, as modified by the North-West Frontier Province Regulation No. I. of 1904, and as amended in 1908, has now been operative for six years in three districts. The Act is appreciated by the zamindars and its operations appear to be beneficial. No attempt to evade the law were reported in 1909–10.

*Madras.*—The Madras Land Encroachment Act of 1905 worked smoothly during the year. The difficulties in the working of the important measure for defining and regulating the position of tenants in the *zamindari* areas, known as the Madras Estates Land Act of 1908, are gradually settling down as suits are decided by the Law Courts. Landlords and tenants resorted to the provisions of the Act more largely than in 1909–10, and its provisions are getting to be better understood. The relations between landlord and tenant are on the whole fairly satisfactory.

*Bombay.*—The extension of the Deccan Agriculturists' Relief Act from four selected districts to other parts of the presidency, though of recent date, has induced the cultivator to adopt sounder methods. Its working has been fortified by the restrictions imposed in certain parts, under the conditions of the new tenure, on the alienation of land by the operations of the co-operative credit societies, and above all by the widespread system of Government advances. At first it restricted credit though not to such an extent as to hamper agricultural operations by crippling the finances of the ryot. But credit is now recovering, and it is not found that the Act prevents the money-lender from carrying on a legitimate business.

## Revenue Surveys and Settlements and Land Records.

For the purpose of land revenue assessment revenue surveys are necessary. Cadastral maps showing the holdings are prepared, and corresponding field registers are made showing from whom the revenue assessment is to be realised, and also the amount of such assessment. The record also usually exhibits the existing rights in, and encumbrances on, the land. As the revenue records are carefully revised at short intervals a very extensive and complete system of registration by public entry is being built up, and transfers of land are easily attested. Settlements (or re-settlements) in new or in temporarily settled areas are always in progress. In consequence of improved methods the period occupied in the process is much shorter than formerly, and involves comparatively little harassment of the people. During 1910–11 much of the time of the various settlement and land records staffs was taken up by Census work.

*Bengal.*—In January 1909 the control of cadastral surveys was transferred from the Surveyor-General of India to the Bengal Settlement Department, whose work now also includes traverse surveys, special surveys, and mapping. Survey and settlement work during the agricultural year to September 1911 extended over 15 districts. The main work of the Survey Department consisted of traverse surveys, which covered 3,618 square miles, or practically the same as in 1909–10. The area cadastrally surveyed was 3,378 square miles, as against 3,474 square miles in 1909–10. The total area for which a record of rights has now been completed in Bengal is 64,805 out of 115,819 square miles. Rents were settled for 66,465 tenants, as compared with 163,195 tenants in 1909–10. The revision of the survey and record of rights in the temporarily settled districts of Orissa was continued. Extensive settlements were carried out in Bihar and Chota Nagpur. Cess-revaluation was carried out in combination with settlement work at Hazaribagh—the first introduction of this system in Bengal.

*United Provinces.*—There was no regular settlement work in progress during 1909–10; the re-settlement of Fatehpur and Etawah which had been proposed for the year was postponed on account of Census work. The reorganised Land Records Department has made progress in all directions. The village maps have been brought up to date and, in order that they may be kept so, *patwaris* are receiving special instruction in methods of revision. Thus it is hoped to dispense with re-survey at the next settlements.

*Punjab.*—Settlement operations were completed in Karnal, Rohtak, and Delhi districts, and made good progress in five other districts. Settlement operations have

been shortened by curtailing the time spent on measurement work and revision of records, with the result that cost has been saved and the people have been less harassed by the operations. The agriculturist element in the *patwari* staff was further strengthened.

*North-West Frontier Province.*—Settlement operations in the Frontier Province were completed during 1906–7. But it was shown on inquiry that, although defensible from a purely revenue standpoint, the enhancements of revenue were too high and sudden, while insufficient consideration had been paid to the poor communications and to the insecurity of life and property inseparable from a border tract. Remissions of revenue were made in villages in three districts where the existing demand was found too heavy, and detailed inquiry has been instituted to decide what further relief is required. No settlements were carried out during 1909–10. In the Department of Land Records the number of mutations attested was 162,383.

*Burma.*—Financial stringency impeded the progress of survey and settlement work. All the districts proposed for revenue settlement have now come under supplementary survey. There was no extension survey of tracts outside the cadastral area; revision survey took place in two districts. Of the 37 districts of the province 31 are settled. The six unsettled districts are hilly and sparsely populated, and it has been decided that settlement is not at present necessary. In nine districts second settlements, and in three, third settlements, have been made or are in progress. It has been decided to extend the normal period of settlement from 15 to 20 years and to graduate the increases of rates imposed in revision settlements. The rates fixed in the first settlements were very low and early revision was desirable, but now that in most districts of Lower Burma normal rates have been fixed, the need of frequent revision and considerable increases in revenue rates has largely disappeared. During 1910–11 settlement operations were in progress in 10 districts. The average cost of the operations was 6*d.* per acre. The rates of assessment consequent on the regular settlement of the Lower Chindwin district were sanctioned. The anticipated increase of annual revenue is £1,973.

*Central Provinces and Berar.*—An unusually large programme of settlement work was carried out during the year; operations took place in eight districts. In the Land Records Department the scales of pay have been raised.

*Eastern Bengal and Assam.*—A survey and record of rights for the entire settled area of the province are being prepared, and afterwards the village maps and records will be kept up to date. The record of rights is increasingly utilised by executive and judicial officers. Good progress was made with major settlement operations in the Jalpaiguri, Dacca, Faridpur, and Mymensingh districts of Eastern Bengal and the Lakhimpur district of Assam.

*Madras.*—Six survey parties were at work during 1910–11 in five districts. They dealt with 2,020 square miles. Five settlement parties continued their operations. The aggregate land revenue demand of the districts either newly settled or re-settled is £3,605,000, an increase of 28·4 per cent. on the demand prior to re-settlement. The cost of the re-settlement operations up to the end of 1910–11 has been £1,181,000. The Land Records Department was, as in previous years, mainly confined to measures preliminary to maintenance.

*Bombay.*—The survey and settlement officers were engaged in demarcation, measurement, classification, and other work of a routine character. The record of rights is now completely established in the Presidency proper, while considerable progress has been made in Sind. The classes in survey instruction for Circle Inspectors and Village Accountants were in abeyance.

## Revenue Assessments and Incidence.

Land revenue is realised in the form of an annual payment for cash, the assessment rates being subject to no alteration during a prescribed term of years, though the amount leviable in any year may vary according to the area actually cultivated or to the condition of the harvest. Except in Bombay (where the assessment is not fixed in terms of produce), the land revenue is assessed so as to represent a share, not of the gross, but of the *net* produce (or net assets). In the zamindari, or landlord settlements,

that widely prevail in Northern India, the cultivating tenant pays rent to a landlord. Of this rent the Government usually takes rather less than 50 per cent. as land revenue.

The incidence of land revenue on the fully assessed cultivated area is under 1*s.* 1*d.* per acre in the permanently settled area of Bengal, and represents, on an average, less than 25 per cent. of the rental. In the permanently settled tracts of Eastern Bengal it falls to about 11*d.* per acre, while in those of the United Provinces it rises to 1*s.* 4*d.* in Oudh and 1*s.* 10*d.* in Agra. In the temporarily settled tracts the incidence per acre is approximately 1*s.* 11*d.* in Upper Burma, 3*s.* 8*d.* in Lower Burma, 3*s.* 4*d.* in Sind, 3*s.* 3*d.* in Madras, 2*s.* 4*d.* in Agra, 2*s.* 6*d.* in Oudh, 2*s.* 4*d.* in Eastern Bengal, 1*s.* 11*d.* in Bombay, 1*s.* 7*d.* in Berar, 1*s.* 6*d.* in the Punjab, and 8*d.* to 9*d.* in the Central Provinces. Rates of revenue vary greatly with the productive power of the soil, advantages of climate and irrigation, and facilities for marketing produce. The land revenue rates for Sind and Madras given above include charges for State irrigation; elsewhere the land revenue rates exclude these charges. In Madras and Bombay the revenue demand is not enhanced on account of increased productiveness due to private improvements, while in Northern India such improvements are not taken into account in assessing the revenue until a period varying from 20 to 45 years has elapsed. It may be added that the burden of the land revenue per head of the population of British India was under 1*s.* 8*d.* in 1910–11.

It has been calculated that in the Central Provinces the share of the gross produce represented by the land revenue is less than 4 per cent. of the average annual value; in Berar, the Deccan, and the greater part of the Punjab, about 7 per cent.; and in Gujarat, 20 per cent. It is certain that the Government now takes a very much smaller share of the gross produce than was customary in the days before British rule, while the assessments are lower than those that prevail generally in the Native States.

The Government makes liberal reductions of assessments in cases of local deterioration, where such reductions cannot be claimed under the terms of settlement.

## Collection of the Revenue.

The fluctuations in the gross land revenue receipts (exclusive of those credited to irrigation) in past years may be seen from the following table :—

| Year. | Land Revenue Receipts (excluding those due to Irrigation). | Variation (Average of Five Years, 1881–5 = 100). |
|---|---|---|
| | £ | |
| 1881–5 (five years' average) | 14,748,000 | 100·0 |
| 1886–90 „ „ (annexation of Upper Burma) | 15,445,000 | 104·7 |
| 1891–5 „ „ | 16,522,000 | 112·0 |
| 1896–1900 „ „ (includes two famines) | 17,217,000 | 116·7 |
| 1900–5 „ „ | 18,483,000 | 125·3 |
| 1906–7 (single year) | 19,794,000 | 134·2 |
| 1907–8 „ (widespread shortage of crops) | 18,719,000 | 126·8 |
| 1908–9 „ | 19,759,000 | 134·0 |
| 1909–10 „ | 21,332,000 | 144·6 |
| 1910–11 „ | 20,878,000 | 141·6 |

The general increase in land revenue is attributable to a variety of causes—to the inclusion of new territory (as Upper Burma); to the bringing of new land under cultivation as in Lower Burma, the Central Provinces, Sind, and the Punjab; to the inclusion of Berar since 1st October 1902; and to the progress of settlements and re-settlements, which, owing to the generally enhanced values of land, usually result in additions to the land revenue. Irrigation canals have enabled the cultivable area to be greatly extended, especially in Sind and the Punjab. The land revenue is usually paid punctually, and it is seldom necessary to have recourse to imprisonment, sales of land, or other processes for the recovery of arrears.

After a widespread failure of crops in 1907–8 and partial failures in 1908–9, the improved agricultural conditions in 1909–10 enabled a large part of the heavy arrears of the two previous years to be paid up. Favourable conditions continued during 1910–11, but the revenue for this year shows a decrease as there was no longer the same recovery of arrears.

The land revenue receipts in 1909–10 and 1910–11 were made up as follows:—

| | 1909–10. | 1910–11. |
|---|---|---|
| Ordinary land revenue | £20,238,630 | £19,907,720 |
| Assessment of alienated lands, less quit-rents* | 659,766 | 659,454 |
| Sale of proprietary right of Government in land† | 81,875 | 52,785 |
| Capitation tax, or house tax levied in lieu thereof‡ | 657,667 | 676,287 |
| Sale of waste lands and redemption of land revenue | 72,804 | 47,308 |
| Recovery of survey and settlement charges§ | 70,107 | 76,656 |
| Fisheries and other receipts | 668,680 | 635,316 |
| | £22,449,529 | £22,055,526 |
| *Deduct* portion of land revenue due to irrigation | 1,117,388 | 1,178,005 |
| Total land revenue | £21,332,141 | £20,877,521 |

The charges in 1910–11 included £1,611,795 for district administration, £451,641 for survey and settlement charges, £932,666 for land records, and £664,408 for collection of the revenue. The total charges were £3,662,426.

The total advances made by Government to cultivators during 1910–11 amounted to £467,515, and the total amount of advances outstanding at the close of the year was £2,401,811. The advances were chiefly for the improvement of land, but partly for the relief of agriculturists and for loans to co-operative credit societies.

The progress of the land revenue will now be reviewed province by province. The figures are taken from the land revenue reports relating to the agricultural year, while those given above are from the corrected Accounts of the Government of India, and relate to the financial year.

*Bengal.*—The land revenue of Bengal remains fairly constant, as most of the province is under permanent settlement. The revenue demand for 1910–11, excluding arrears, amounted to £1,933,574, including £1,524,989 from 115,965 permanently settled estates, £216,905 from 10,894 temporarily settled estates, and £191,680 from 938 estates under the direct management of Government. The percentage of current collections on current demand was 97·96 per cent. Remissions were trifling. The number of estates, &c. which became liable to sale for non-payment of Government revenue fell to 11,949, but only 667, or 5·5 per cent., were actually sold. Under the Public Demands Recovery Act, 61,731 certificates were filed for recovery of arrears of revenue (exclusive of cess), compared with 62,082 in 1909–10; payment was generally secured on issue of notices or on attachment of property, but actual sale was necessary in 2,266 cases, and warrants were issued in 1,009 cases, 36 defaulters being imprisoned. Advances under the Loans Acts amounted to £27,240.

*United Provinces.*—The fixed land revenue demand in 1909–10 was £4,329,185. About £12,500 was remitted or suspended, and the collections were short of the demand by only £7,221. Other sources of revenue, not strictly classed as land revenue, are the occupiers' rate (receipts, £543,844) and the owners' rate (receipts, £11,088), which constitute payments for irrigation, besides cesses, &c. The collections on account of canal rates fell with a decrease in the area irrigated. There was, owing to the improved character of the year, a greatly decreased demand for advances under the Land Improvement Loans Act and the Agriculturists' Loans Act, the total amounting to only £81,200. The loans were chiefly for the purchase of seed and plough cattle. Two advances were made for the instalment of sugar factories. Over £500 was repaid in respect of previous loans. The number of coercive processes continues to increase, but the increase is largely apparent, being due to changes in the method of reckoning the number. Greater regularity in collecting and a substitution of legal for irregular methods also account for much of the increase. The increase in the number of warrants (9,909, as against 8,694 in 1908–9) may also be partly due to increased facilities for arrest given by attendance in answer to citations. The number of defaulters actually detained in custody was not abnormal. In only 106 cases was moveable property sold, and in no case immoveable property.

*Punjab.*—The year 1909–10 was one of the most prosperous of recent times, both autumn and spring harvests having been much above the quinquennial average. The fixed land revenue demand for the year amounted to £1,391,143, or about £21,000 more than in 1908–9. About 99 per cent. was collected. The "fluctuating" revenue

* Mostly from Bombay. † Mostly from Punjab. ‡ Mostly from Burma.
§ From Bengal and Eastern Bengal and Assam.

amounted to £374,514, or 21 per cent. of the total land revenue demand (under the "fluctuating" system the demand varies with the crop; it is applied for the most part to canal-irrigated and riverain tracts). Miscellaneous revenue, mostly derived from sales of Government estates, amounted to £126,058. A large portion was derived from the sale of Government estates in the Chenab Colony districts. Agricultural advances amounted to £22,077.

*North-West Frontier Province.*—In 1909–10 the harvests were good. Of the total demand of £129,481 on account of fixed land revenue, 98·1 per cent. was collected. Fluctuating and miscellaneous land revenue contributed £20,483, compared with £26,771 in 1908–9. The system of fluctuating assessments is generally appreciated. Coercive processes fell from 2,233 to 1,452, the decrease being most marked in the Peshawar district. In no case was imprisonment necessary. The agricultural advances made during the year amounted to £9,254.

*Burma.*—The agricultural year to 30th June 1911 was less prosperous than its predecessor. Large areas were exempted on account of floods, there were no large settlement-enhancements, and new land is not being taken up so quickly as hitherto in Lower Burma. Consequently the increase in revenue-demand (*see* table of Revenue Demand, exclusive of arrears, given in the margin) was small as compared with the previous year, and the actual collections of land revenue proper decreased. Of the current land revenue demand over 98 per cent. was collected. The number assessed for capitation tax increased to 1,354,323, a growth of 10,684. There was a rise of 23,673 to a total of 804,559 in the number of households assessed to the household tax, or *thathameda*. The heading "other sources" includes royalties on petroleum, rubies, &c., amounting to £203,045, and miscellaneous fees and rents. Remissions, due chiefly to floods, amounted to £33,895. Coercive processes for the recovery of revenue increased, owing chiefly to the less favourable seasons, the number of imprisonments rising from 37 to 69. Capitation tax and *thathameda*, which are levied in Lower and in Upper Burma respectively, are harder to collect without process than land revenue. The amount of agricultural advances rose to £62,012.

| — | 1909-10. | 1910-11. |
|---|---|---|
| | £ | £ |
| Land Revenue - | 1,733,792 | 1,736,043 |
| Capitation tax - | 365,578 | 369,618 |
| Household tax - | 278,376 | 282,995 |
| Fisheries - - | 197,711 | 201,188 |
| Other sources - | 230,899 | 236,991 |
| TOTAL - | 2,806,356 | 2,826,835 |

*Central Provinces and Berar.*—In the Central Provinces the year to 30th September 1910 was one of continued prosperity. The land revenue demand (excluding cesses) was £604,360. Remissions and suspensions were small. Collections were good. Coercive processes showed some increase. The number of defaulters arrested was 156, but only three were imprisoned; attachments and sales of property numbered 686 and 24 respectively. Agricultural advances to the amount of £24,022 were made, chiefly for the purchase of seed and cattle.

In Berar during the year to 31st July 1910 excellent crops followed on the indifferent season 1908–9. The land revenue demand, including cesses, amounted to £599,517, a small increase over that of 1908–9, and almost the whole was collected during the year. The number of coercive processes fell from 12,833 to 3,746, a reduction partly owing to the exceptionally good season and partly to instructions to officials deprecating the indiscriminate recourse to coercive action. In Berar agricultural advances amounted to only £3,167.

*Eastern Bengal and Assam.*—The general conditions of the year were favourable, though floods damaged the crops in many quarters. The total current land revenue demand for the Plains districts was £1,305,231, as against £1,285,374 in 1909–10, the percentage of collection in both years being 96·5. Of the total revenue 50 per cent. was contributed by permanently settled estates, 37 per cent. by temporarily settled estates, and 13 per cent. by estates under direct Government management. Miscellaneous land revenue amounted to £32,343 in 1910–11. The land revenue was collected with great ease, and only 669 estates (mostly petty estates in the Chittagong district) were actually sold in Eastern Bengal. The amount of revenue for which it was necessary to sell up property in Assam was very small. The amount of agricultural loans granted, £7,573, was smaller than in 1909–10. The revenue demand (ordinary and miscellaneous) for the Assam Hill districts was £18,763 in 1910–11, as against £17,298 in 1909–10.

*Madras.*—The new district of Chittoor was created in March 1911. Both the south-west and the north-east monsoons in 1910–11 was on the whole good and well-distributed, but the dry and hot weather rains were below the average. The total crop area exceeded the normal by 1,217,000 acres, but the outturn was nowhere reported as above normal. The total current demand in 1910–11 for land revenue, including charges for irrigation and miscellaneous receipts (£4,435,115 in addition to £442,485 for various cesses) showed an increase, due to re-settlements and a good season. Of the above demand, £332,668 represents revenue from permanently settled estates, and £50,233 quit-rents from villages held under special tenures, these sums being fairly constant; the remainder comes mainly from peasant proprietors. Remissions were small. As the result of orders which were passed in 1904 to restrict the issue of demand notices to cases of real necessity, there has been a decline in the number from 6,212,162 in 1903–4 to 1,463,605 in 1910–11, while the number of sales has fallen from 9,479 to 2,747. Advances under the Loans Acts amounted to £40,300.

*Bombay and Sind.*—During the year to 31st July 1910 the season was better than of recent years; only in some parts of the Central Division and in Sind was it unsatisfactory. The total land revenue demand amounted to £2,705,465. The suspensions were less than one-fifth of what they were in 1908–9. The agricultural advances made in Bombay and Sind amounted to £129,912.

## Wards' and Other Estates.

*Wards' Estates.*—Courts of Wards have been established in most of the larger provinces. Primarily intended for the protection of the Government revenue, they are also beneficial to the interests of the owners, and recent changes in the law have been largely made in the owners' interests. Before 1899, the Courts had power to assume the management of estates of minors, of persons physically or mentally incompetent to manage their own property, or of persons declared by the local Government, at their own request, to be disqualified for its management. Since that year, various amending Acts have been passed in the several provinces, their general effect being to increase the powers of the Court of Wards with regard to the management of the properties under its charge and the discharge of encumbrances, and to prevent disqualified proprietors from creating new charges without the knowledge of the Court. The duty of the Courts is to manage the estates under their charge in the interests of both proprietors and tenants; to support the family of the proprietor, and to educate young wards; to pay off debts due by the estates; and to spend the surplus income on the improvement of the property in the best attainable way.

At the end of the last agricultural year for which complete figures were available there were 599 estates under management in the eight provinces that have Courts of Wards. The gross income of the estates was about £3,475,000.

*Other Estates.*—In Bengal there were 938 Government estates under direct management, with a current revenue demand of £191,680. The number is being gradually reduced by amalgamation. In Eastern Bengal and Assam there were 1,601 Government estates under direct management, paying an annual revenue of £167,736, at the close of 1910–11. In the United Provinces the number of Government estates fell from 611 to 605, most of them being properties bought in under the Bundelkhand Encumbered Estates Act. In Bombay proper there were 611 estates under the management of the Talukdari Settlement Officer and 272 encumbered estates under a special manager in Sind.

# CHAPTER V.

## REVENUE FROM TAXATION AND OPIUM.

| | |
|---|---|
| SALT. | CUSTOMS. |
| EXCISE. | INCOME TAX. |
| PROVINCIAL RATES. | REGISTRATION. |
| STAMPS. | OPIUM. |

*(For further details see Statistical Abstract for British India, Tables 43, 45 to 47, 50 to 58, and 61 to 66.)*

Of the eight heads of revenue dealt with in this chapter, seven comprise the tax revenue of India, and furnish about 43 per cent. of the total net revenue of the Indian Government. To this the chief contribution is made by excise, the yield of which has increased in recent years, mainly on account of higher rates of duty and stricter supervision. Next come customs and stamps, both of which have benefited by the great progress in trade and industry and enhanced rates in 1910–11. The salt revenue has diminished, owing to reductions, amounting to 60 per cent., in the rate of duty since March 1903. Receipts from income tax, though small, are increasing. Those from registration show, for the second year running, a decrease.

### SALT.

*General.*—From time immemorial a tax on salt has been a source of revenue in India. The salt revenue is now raised by a duty on all salt imported into, or manufactured in, India. The rate of duty has in past times ranged from 3 annas (in Burma) to $3\frac{3}{4}$ rupees (in Bengal) per maund of $82\frac{2}{7}$ lbs. In 1882 a general duty of Rs. 2 per maund was introduced (except in Burma), and this was raised in 1888 to Rs. $2\frac{1}{2}$. In 1903 the rate of Rs. 2 was reverted to, and in March 1905 the tax was further reduced to Re. $1\frac{1}{2}$ per maund. A further reduction to one rupee (or 1*s.* 4*d.*) per maund was effected in March 1907. In Burma the rate has remained since 1888 at one rupee per maund on imported salt, and a system has been introduced by which the greater part of the salt which is locally produced pays a duty of 8 annas per maund. The Indian salt duty is now more uniform, and lower on the average, than at any former time. Exemption from duty is granted under certain conditions for salt used in manufacturing processes. The reduced duty and increased facilities for transport have made salt cheaper than ever before. The successive reductions of duty have led to a large increase in consumption throughout India, as will appear from the table in the margin, the increase in the eight years since the reductions began being about 18 per cent. Although, however, consumption has grown, the sacrifice of annual revenue cannot be made good by enhanced consumption within any period worth considering. The gross revenue from salt (including excise and customs receipts, proceeds of sales of Government salt, &c.) during recent years is shown in the table. In 1908 an Act was passed permitting the payment of the duty on a system of limited credit instead of in cash, and the reduction in revenue in the last three years is partly due to this cause. The revenue in 1910–11 decreased to £3,175,950, of which nearly 30 per cent. was derived from imported salt. The charges amounted to £377,076, exclusive of £248,459 paid under treaties in the form of compensation, principally to Native chiefs who have assigned their salt sources to the Government of India. In some provinces the salt and excise administrations have recently been united.

| Year. | Issues of Salt in 100,000's of Maunds. | Duty per Maund. | Gross Revenue. |
|---|---|---|---|
| | | Rs. | 000 £ |
| Average: | | | |
| 1898–9 to 1902–3 - | 360 | $2\frac{1}{2}$ | 6,002 |
| 1903–4 and 1904–5 | 385 | 2 | 5,302 |
| 1905–6 and 1906–7 | 419 | $1\frac{1}{2}$ | 4,370 |
| Year 1907–8 - - | 444 | 1 | 3,339 |
| „ 1908–9 - - | 454 | | 3,276 |
| „ 1909–10 - - | 458 | | 3,320 |
| „ 1910–11 - - | 426 | | 3,176 |

The principal sources of salt supply are the sea coast, especially in Madras and Bombay, where salt is manufactured by the evaporation of sea water; the salt lakes and pits of Rajputana; the salt mines of the Punjab and North-West Frontier Province; and importations from abroad, which supply most of Bengal, Eastern Bengal and Assam, and Burma. The duty is levied on salt at the place of manufacture, or at the port of

importation, before it passes into consumption. Some of the salt sources belong to, or are worked under the direct control of, the various Local Governments; others are owned or leased by private individuals. The salt supply of India is not, therefore, a Government monopoly, and the importation of salt is unrestricted. Manufacture is not allowed where the circumstances are such as to render proper collection of the duty impracticable, as, for instance, on the coast of Bengal.

*Northern India.*—The salt sources under the control of the Northern India Salt Department comprise: (1) the Rajputana sources, including the Sambhar Lake and the brine springs at Pachbadra and Didwana in the Jodhpur State; and (2) the Punjab sources, including the Mayo, Warcha, and Kalabagh mines, the Kohat mines, the Mandi mines, and the brine springs at Sultanpur. The most important sources are the Sambhar Lake and the Mayo mine. Since 1870, when the lake was leased by the Government of India, over 158 million maunds of salt have been taken from it, and the financial results show a total credit balance of over £280,000. Owing to fears that the Sambhar salt was becoming exhausted, a long trench for obtaining subterranean brine has been excavated through the bed of the lake, while combined storage and evaporating reservoirs have been constructed. Owing to scanty rainfall the outturn of the lake fell from 8,009,050 maunds to 4,843,451 maunds. The labour supply also appears to have fallen off permanently. The Sambhar salt is sold at a uniform price of 4 annas per maund, with a charge of 3 pies for clearance; the sales in 1910–11 amounted to 4,217,349 maunds. The price of Didwana salt was 2 annas; and the price of Pachbadra salt 1½ annas, with a charge of 3 pies for clearance. The sales from the Mayo and other Punjab mines amounted to 3,300,096 maunds. The Mayo salt is sold for 10 pies per maund, or, at the Khewrah depôt, for 13. Kohat salt, on the average, costs about 9½ pies. The gross revenue of the Northern India Salt Department in 1910–11 was £699,385, or £32,491 less than in 1909–10, while the total charges amounted to £83,283. The total quantity issued by the Department for consumption was 9,714,814 maunds, as compared with 10,019,980 maunds in 1909–10. The following table shows the provinces and states mainly supplied by the Department, with the salt consumption in 1910–11 and the average retail price of salt in each in 1910–11, compared with that in 1909–10:—

| Province or State. | Total Consumption. | Average Retail Price per Maund. | | Average Consumption per Head (based on 1911 Census Figures). |
|---|---|---|---|---|
| | | 1909–10. | 1910–11. | |
| | Maunds. | Rs. A. P. | Rs. A. P. | Lbs. |
| North-West Frontier Province | 171,009 | 1 8 8 | 1 8 11 | 6·40 |
| Punjab | 2,567,212 | 1 9 9 | 1 9 11 | 8·74 |
| Kashmir and Jammu State | 327,989 | — | — | 9·21 |
| United Provinces | 5,489,461 | 2 0 3 | 2 0 7 | 9·41 |
| Behar (Bengal) | 3,596,604 | 1 15 4 | 1 15 4 | 11·95 |
| Central Provinces and Berar | 2,366,150 | 2 5 8 | 2 5 7 | 12·14 |
| Rajputana and Central India | 2,440,740 | 1 14 11 | 1 15 0 | 9·85 |

The average retail prices were thus higher in almost all the provinces and states enumerated. The annual figures of consumption represent the difference between the estimated supply (including imports into) and the exports from each territory, and are liable to be vitiated by the existence of stocks.

The Department issued 47,959 licences for the manufacture of saltpetre and other saline substances in 1910–11. The refineries produced 474,723 maunds of refined saltpetre.

The number of persons arrested for offences against the salt law was 353, of whom 205 were released. Of 132 persons convicted 21 were imprisoned.

*Bengal.*—The salt consumed in Bengal is imported from abroad or from other parts of India. In the littoral districts salt production is prohibited, owing to the difficulty of preventing illicit manufacture. The quantity of salt imported in 1910–11 was 11,879,570 maunds, an increase of 1·7 per cent. upon 1909–10. The average wholesale price of salt, including duty, at the chief marts of Bengal was about Re. 1.15.5 per maund, having increased by about 2 pies as compared with 1908–9. The average retail prices in the saliferous tracts (for which alone information on this point is available) varied, as in previous years, from 9 to 15 pies a seer. The net amount of

salt consumed in the province rose to 8,143,100 maunds, as against 8,172,823 maunds in 1909-10. The number of persons convicted of offences against the salt law was 25, as against 95 in 1909-10; there has been a considerable decrease in these offences of late due to wide distribution of shops for the sale of licit salt, systematic patrol, and the better condition of the people. The facilities granted towards the end of 1909-10 for the issue of salt on the credit system on deposit of security are proving popular, securities having been deposited to the extent of £160,000.

*Eastern Bengal and Assam.*—This province, like Bengal, depends on imported salt. The approximate total consumption in 1910-11 was 4,461,666 maunds, being an average per head of over 10½ lbs. The average wholesale selling price per maund, including duty, was Rs. 2.0.11 against Rs. 2.0.8 in 1909-10. At the commencement of the year the province took over the control of its salt preventive operations which had hitherto been administered from Bengal. As in the previous year, there were no offences against the salt law.

*Madras.*—Originally there was a Government monopoly of salt manufacture in the Madras Presidency, but in 1882 an attempt was made to substitute private manufacture and abolish all Government factories. This, however, did not answer, and in 1888 a certain number of Government factories were established as a check on the prices and quality of the privately manufactured (or "excise") salt. The system thus instituted still exists. Of the 64 factories worked during 1910-11, 45 were under private and 19 under Government management. The outturn of salt reached the record figure of 12,647,534 maunds, of which 7,736,537 maunds were "excise" salt. The imports by sea and rail, chiefly from Bombay and Goa, amounted to 1,700,311 maunds. Excluding the salt sold for fish-curing and to the French Government, or exported, the total of salt for consumption was 10,980,074 maunds. The average consumption per head was 19 lbs. in the whole Presidency, including Coorg and Mysore, and other Native States (except Travancore and Cochin), as compared with 18·9 lbs. in 1909-10. The average wholesale price of "excise" salt remained at 3 annas 2 pies per maund. Government salt is usually sold at a fixed rate of 3 annas per maund. The retail prices, including duty, varied from Re. 1.6.4 to 2.9.7 per maund, against Re. 1.6.1 to 2.10.4 in 1909-10. There was a further decline in offences against the salt laws, ascribed chiefly to the lower price of salt and to the deterioration of saline soils.

At the end of 1910-11 131 bonded yards were open for curing fish under special regulations, whereby cheap salt is sold to fish-curers. The quantity of fish brought to be cured rose to 1,558,009 maunds, and 858,646 maunds of cured fish left the yards fit for consumption.

*Bombay.*—The salt supply of Bombay comes from the Pritchard salt brine works, owned by the Government (Baragra salt), from sea-salt works on the coast, and from abroad, chiefly from Goa. The 435 sea-salt works, excepting one, at Dharasna, worked by the Government, are owned by, or leased to, private individuals. The bulk of the Baragra salt is exported to the United Provinces, the Central Provinces, and Central India; while the Madras Presidency and its States, Hyderabad, Mysore, Calcutta, and the Central Provinces, take large amounts of sea salt. The conditions of the year were favourable. The marginal table shows the issues of salt from each source in 1910-11. The consumption per head was 13·17 lbs.,* as against 12·17 lbs. in 1909-10.

| — | Total Issues. | For Local Consumption. |
|---|---|---|
| | Maunds. | Maunds. |
| Baragra salt - | 2,756,203 | 571,864 |
| Sea salt - | 9,358,313 | 2,508,666 |
| Imported salt | 377,434 | 275,646 |
| Total - | 12,491,950 | 3,356,176 |

There was but little change in the average market price per maund in most districts. There was a further diminution, from 170 to 135, in offences against the salt laws, ascribed to the reduction of duty.

Thirty-one fish-curing yards were open at the end of the year. Owing to adverse weather, the quantity of fish brought to be cured in bond fell from 247,717 to 231,286 maunds, and the quantity of cheap salt issued to fish-curers from 70,031 to 68,768 maunds.

*Sind.*—The Sind salt supply is derived chiefly from the sea-salt works at Maurypur, and in smaller quantities from salt deposits at Saran and Dilyar on the edge of the desert, and from importation. The quantity consumed during the year was

* Based on 1901 Census figures.

418,945 maunds. The consumption per head fell from 10·35 lbs. in 1909–10 to 9·81 lbs. in 1910–11. The average wholesale price of Maurypur salt was Re. 1.14.9, and the average retail price Rs. 2.3.11. Only one fish-curing yard was worked. Salt offences fell from 55 to 39.

*Burma.*—One rupee per maund is levied on salt imported into Burma. All salt locally manufactured formerly paid an excise duty levied by a composition rate on vessels used for boiling brine; but a system of levying duty on actual output has now been introduced into all districts where any large quantity is produced, and has proved financially successful. As the result of an inquiry into the salt industry, it was decided to suppress the manufacture where it is of slight proportions, to concentrate it wherever it is continued, to combine the Salt with the Excise Department, and to enhance the excise duty by 25 per cent. The latter change took place at the beginning of 1911. The other changes will be introduced gradually. Duty was paid in 1910 on 1,768,047 maunds of imported salt, and on 539,685 maunds manufactured under the system of direct taxation. The total estimated output of local salt was 617,453 maunds. The estimated consumption was 2,374,491 maunds, of which about 26 per cent. was Burma salt, as against 31 per cent. in 1909. Foreign salt thus appears to be ousting the native product in Burma. The prices of both foreign and local salt vary greatly in different districts. The average retail price rose from Rs. 2.15.4 in 1909 to Rs. 3.0.3 in 1910. The statistics relating to local production of salt are untrustworthy, but the returns show that the industry was far from prosperous during 1910. There was a decrease to 199,649 maunds in imports of salted fish, on which a duty of 6 annas per maund is levied.

## Excise.

*General.*—The excise revenue is derived from the manufacture and sale of intoxicating liquors, opium, and hemp drugs. There is no excise duty on tobacco or betel. Opium, which is a common household drug, is usually taken in the form of pills or is dissolved in water and drunk. Opium smoking is not extensively practised. The excise revenue from opium is chiefly composed of duty and vend fees, and the rate of duty varies with local conditions, being highest where smuggling is most difficult. The right of retail vend is usually sold by auction. With regard to hemp drugs, cultivation is restricted and controlled, a duty is paid before issue, and retail sale takes place under licences, which are usually sold by auction.

The considerable growth of the excise revenue in recent years is due mainly to higher rates of duty and stricter excise control, and does not indicate a corresponding increase in consumption, although some increase has occurred through the expansion of population and the greater prosperity of certain classes. There has been a large and continuous reduction in the number of country spirit shops in the chief provinces. The Government consider that shops should not be so few as to give each a monopoly over a wide area, lest prices should be unduly raised and illicit practices encouraged. Measures are being taken both to redistribute and to reduce the number of existing shops, as well as to improve the quality of the liquors sold.

In 1905 the Government of India convened a Committee to inquire into excise administration in respect of intoxicating liquors, and to propose reforms. In a Resolution, dated September 1905, they declared, in appointing the Committee, that they had no desire to interfere with those who use alcohol in moderation; but their settled policy was to minimise temptation for those who do not drink, and to discourage excess amongst those who do. The most effective way of forwarding this policy was to make the tax upon liquor as high as possible without stimulating illicit sale and production, and without driving people to substitute deleterious drugs for alcohol, or a more for a less baneful form of liquor. The Committee's report, dated 4th July 1906, was published as a Parliamentary Paper [Cd. 3327]. The orders passed thereon by the Government of India were also published as House of Commons Papers (142 and 209 of 1907 and Cd. 3816). As a result of the Committee's recommendations, an extensive programme of reform has been adopted, which is gradually being carried into effect. Some of the principal features of the Indian excise systems, with reference to the Government of India's recent orders, were outlined in the Moral and Material Progress Report for 1907–8.

The normal excise system for liquors, which will eventually prevail over the greater part of British India, is based on the grant by contract of the right of wholesale supply and the sale by auction of the right of retail vend. By these means the

dangers of unrestricted competition for the supply of liquor and the attendant difficulty of proper supervision are avoided, while the largest possible part of the monopoly profits arising from these restrictions is secured to Government.

During 1910–11 many classes of excise duties were raised in the various provinces; such increase being consequent on an increase in customs duties at the commencement of the year. Better economic conditions and stricter control have also begun to show their effect, with the result that the receipts show an increase in the majority of provinces. The following table shows the excise revenue for 1909–10 and 1910–11 under the different heads, as given in the Finance and Revenue Accounts:—

| Year. | Licence and Distillery Fees and Duties. | | | | | Duty, &c. on Indian Consumption of | | Fines, Confiscations, Miscellaneous. | Total Revenue. | Charges. | Net Revenue. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Foreign Liquors, &c. | Country Spirits. | Toddy. | Opium and its Preparations. | Other Drugs. | Opium, &c. | Ganja. | | | | |
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| 1909–10 | 355,881 | 3,416,128 | 1,090,181 | 254,014 | 399,315 | 738,020 | 257,639 | 26,676 | 6,537,854 | 397,913 | 6,139,941 |
| 1910–11 | 302,420 | 3,752,642 | 1,153,167 | 263,956 | 475,526 | 774,398 | 285,047 | 23,158 | 7,030,314 | 405,994 | 6,624,320 |

| | £ |
|---|---|
| 1893–4 | 3,971,000 |
| 1903–4 | 5,291,000 |
| 1907–8 | 6,585,000 |
| 1908–9 | 6,692,000 |
| 1909–10 | 6,837,000 |
| 1910–11 | 7,423,000 |

A sum of £798,908 was yielded by customs duties on exciseable liquors imported into India during the year. The revenue from liquors and drugs (*i.e.*, total excise revenue less charges, *plus* Customs duties on exciseable liquors) for 1893–4, 1903–4, and the last four years is given in the margin. In 1910–11 it amounted to rather more than sevenpence per head of the population affected.

The number of retail shops and the excise receipts, as compared with the population, are shown in the following table, province by province:—

| PROVINCE. | Population of Excise Area by Census of 1911. | Number of Persons per Retail Shop licensed in 1910–11 for the Sale of | | | | Net Excise Receipts per 10,000 of Population in Rupees. |
|---|---|---|---|---|---|---|
| | | Country Spirit. | Country Fermented Liquor. | Opium and its Preparations. | Narcotic or Intoxicating Drugs, other than Opium. | |
| Bengal | 52,656,000 | 17,886 | 4,537 | 38,129 | 17,035 | 3,236 |
| United Provinces | *47,671,000 | 9,757 | 15,620 | 41,489 | 13,387 | 2,049 |
| Punjab | 19,934,000 | 23,646 | 498,341 | 21,833 | 31,873 | 2,765 |
| North-West Frontier Province | * 2,120,000 | 57,308 | -- | 25,858 | 24,096 | 1,253 |
| Burma | 10,527,000 | 453,840 | 9,501 | 84,898 | — | 5,829 |
| Central Provinces and Berar | 13,918,000 | 3,493 | 27,236 | 13,395 | 12,493 | 5,239 |
| Eastern Bengal and Assam | *30,296,000 | 46,183 | 3,378 | 41,275 | 26,135 | 2,496 |
| Madras | 41,427,000 | 4,274 | 2,505 | 40,293 | 65,400 | 6,243 |
| Bombay | 16,105,000 | 7,384 | 1,522 | 20,568 | 28,966 | 9,856 |
| Sind | 3,514,000 | 13,779 | 878,433 | 13,672 | 6,890 | 5,437 |

* Population according to 1901 Census.

*Bengal.*—In Bengal the total excise revenue for the last two years, according to the departmental returns, has been as shown in the margin. The increase under all the larger heads is due to reviving prosperity and cheaper grain. The excise revenue per head is about 5½*d.* The contract distillery system was further extended in the Patna and Tirhut divisions by the abolition of outstills. This policy has led, where introduced, to a decrease of consumption at first, owing partly to the greater cost of the contract spirit as compared with outstill spirit, and partly to the suspicion with which the new spirit is at first viewed, but the latter feeling wears off quickly. The increase in receipts from country spirit is partly the effect of the enhanced duty on foreign spirits, the import of which has fallen off considerably. The licence fees, at which country spirit shops have been settled for 1911–12, show a marked increase,

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Country spirits | 576,374 | 604,799 |
| Foreign liquors and rum | 31,065 | 33,667 |
| Fermented local liquors, toddy, and rice-beer. | 131,419 | 151,730 |
| Opium | 171,401 | 176,920 |
| Hemp drugs | 207,668 | 229,104 |
| Miscellaneous | 1,634 | 2,215 |
| Total | 1,119,561 | 1,198,435 |

attributed to improved agricultural conditions. Calcutta again contributed almost one-third of the total revenue from country spirit. In 30 large towns local committees, chiefly composed of non-official members, were appointed to advise collectors as to the number and sites of liquor shops to be licensed for the ensuing year. In deference to local opinion, such shops were abolished or removed to other sites in 29 cases. No committee was appointed in Calcutta as the licences had been settled by a committee for three years from April 1910.

The consumption of opium increased slightly. The smuggling of opium into Burma was considerably checked by the restriction of opium issued to shops in Calcutta and adjoining districts, so that the vendors had no margin beyond the requirement of the neighbourhood for smuggling purposes. Considerable seizures of smuggled opium were, however, made during the year. Two hundred and eighty licences for the sale of cocaine were issued. The illicit traffic in the drug appears to be still on the increase. An increased consumption of *ganja* is ascribed to the fall in price and to general prosperity. It is also said that where the price of country spirit has been raised by the introduction of the contract supply system, people have resorted to *ganja* as an alternative stimulant.

There was a large increase—from 690 to 1,264—in the number of convictions for illicit distillation. This is due probably to the simplified procedure introduced by the Excise Act of 1909, and the greater powers which it confers on excise officials. Three hundred and fifty-three persons, of whom 270 were in Calcutta, were convicted for the illicit sale and possession of cocaine.

*United Provinces.*—Here, as in Bengal, consumers are getting accustomed to the contract supply system, with the result that the receipts from distilleries, which dropped when the system was introduced, have now recovered, while the licence fees have greatly increased. General prosperity and a greater number of Hindu marriages (postponed from the previous year, which was inauspicious) are also among the causes of the increase shown in the marginal table. The contract supply system was extended into parts of Kumaon, and preparations were made for its extension to Bundelkhand. Still-head duty was increased in various localities.

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Country spirits - - | 346,548 | 436,079 |
| Foreign liquors and rum - | 22,464 | 18,513 |
| Fermented liquors - - | 19,021 | 23,637 |
| Opium - - - - | 62,316 | 71,621 |
| Other drugs - - - | 122,635 | 123,965 |
| Miscellaneous - - | 486 | 410 |
| Total - - | 573,470 | 674,225 |

Local committees in towns of over 20,000 inhabitants advised upon the number and location of liquor shops, which were further reduced by 68. The total number now remaining does not offer much scope for further reduction.

The smuggling of opium to Burma *viâ* Calcutta was the subject of special attention. The experiment was tried of restricting issues. This, combined with the recent enhancement of the issue-price and active preventive measures, is believed to have checked the practice.

Owing to the new Excise Act of 1910, under which petty breaches of the excise law may be compounded by a fine, the number of prosecutions decreased. The number of cocaine cases rose from 41 to 59.

*Punjab.*—The excise establishment underwent reorganisation during the year. The gross excise revenue in the Punjab for the last two years is shown in the margin. After a temporary check in 1909–10 due to the inauguration of a restrictive policy, the revenue once more shows a large increase. This is especially marked under country spirits, although the natives are reported to be contracting a taste for beer in lieu of spirits, and the retail of beer in foreign liquor shops shows an increase. A large trade has grown up in country spirits flavoured with essences, which are said to be taking the place of foreign spirits. There were no further reductions of licences on the recommendations of local committees, as the latter are to report at the end of every three years, but the desirability of

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Imported liquors - - | 10,901 | 12,471 |
| Malt liquors - - - | 14,087 | 14,121 |
| Country spirits - - | 163,636 | 237,306 |
| Opium - - - - | 58,237 | 71,263 |
| Other drugs, &c. - - | 41,922 | 45,157 |
| Total - - | 288,783 | 380,318 |

reducing the number of liquor shops in some districts is being considered officially. The new Excise Bill has been submitted to Government. The serious increase in the consumption of country spirits is causing the authorities to consider the question of further raising still-head duties.

There was a further decrease of three in the number of licensed opium shops. The importation of Kashmir opium has been prohibited, and the rate of duty on excise opium and certain imported opiums has been raised. The boiling of opium before sale has also been prohibited. This is expected to facilitate the suppression of smuggling. The consumption of *bhang* and *charas* increased; the duty on the latter drug was raised. The smuggling of cocaine, especially in Delhi, claimed serious attention.

*North-West Frontier Province.*—The gross excise receipts amounted in 1910–11 to £18,546, as against £21,239 in 1909–10, the decrease of 12½ per cent. being mainly in imported liquors and opium. The gross receipts were: imported liquors, £1,714; country spirits, £5,407; opium, £6,762; other drugs, &c., £4,653. At the commencement of the year under review the duties on spirit and opium were enhanced, extensive reforms were instituted in pursuance of the recommendations of the Excise Committee, and the preventive system was reorganised.

*Burma.*—The gross excise revenue during the last two years was as shown in the marginal table. A further decline in opium revenue was due mainly to the policy of restricting sales to the ascertained actual consumption of buyers, who must use particular shops. It is probable that the margin thus left for illicit disposal of legally-issued opium is now very small. There are signs that the consumption of opium among Burmans is decreasing. The number of registered Burman opium consumers at the close of 1910–11 was 15,298, a decline of 1,316. The smuggling of opium from India into Burma still continues, but it is hoped that the contemplated reorganisation of the excise establishment will lead to more effective suppression of this evil. The problem of preventing the increasing smuggling of cocaine engaged attention, the growing consumption being regarded with concern. Larger seizures than ever were made. The considerable decrease in receipts from duties on imported liquors was due chiefly to the raising of the customs duties. This, however, has led to illicit distillation, the spirit thus obtained being sold as foreign liquor. The number of retail *tari* shops fell from 750 to 718. Ten shops were abolished in Moulmein on the recommendation of the Excise Committee. The contract distillery system is being further extended. Convictions for excise offences were somewhat more numerous than in 1909–10.

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Imported liquors, &c. - | 98,227 | 79,528 |
| Country spirit - - | 13,441 | 13,328 |
| Fermented liquors - - | 157,498 | 158,369 |
| Opium - - - - | 264,672 | 250,001 |
| Fines, &c. - - - | 5,334 | 4,697 |
| Total - - | 539,172 | 505,923 |

*Central Provinces and Berar.*—The excise receipts for 1910–11, as compared with those for 1909–10, were as shown in the margin. The general increase is due to improved agricultural conditions, to the greater number of marriages (which had been postponed during the inauspicious year of "Sinhast"), and to the collapse of a temperance movement, the origin of which was largely political. The number of liquor shops was reduced from 4,243 to 3,984. This is largely due to the substitution of the contract supply system for the outstill system.

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Country spirits and toddy | 324,344 | 364,827 |
| Opium - - - - | 126,138 | 131,520 |
| Hemp drugs - - - | 33,100 | 35,107 |
| Miscellaneous, including foreign liquors. | 5,314 | 6,146 |
| Total - - | 488,896 | 537,600 |

The contract supply system has been further extended, and certain "outstill" areas have been put under the "Sadar" system preparatory to the introduction of the contract supply system. The duty on country spirit was raised. A revised scale of fees was introduced for foreign liquor licences. The number of convictions for excise and opium offences was smaller, and steps are being taken to prevent the smuggling from Native States, which is the cause of much trouble. The Excise Act has not yet been revised, but the new Bill was exhaustively discussed.

*Eastern Bengal and Assam.*—The excise revenue for the last two years has been as shown in the margin. The diminution under "imported liquors" is due to the increase in the duty and the adoption of the "fixed fee" system of licences. The increase under opium is chiefly due to enhancement of duty, and under other heads to the abundant crop, low prices, and agricultural prosperity. The number of country spirit shops was further reduced by 24, of *ganja* shops by 17, and of opium shops by 42. Local committees to assist in licensing were constituted in Dacca, Narayanganj, and Chittagong, but no objections to the sites proposed for licensed premises were received. The contract distillery system, where in force, has led to an improvement in the quality of the liquor and to a diminution of drunkenness, though it has also led to an increase in illicit distillation. It is proposed to extend the system to the Dacca division. The draft rules under the Excise Act of 1910 have been submitted for the approval of the Government of India.

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Imported liquors | 9,639 | 8,624 |
| Country spirits | 147,794 | 164,931 |
| Opium | 189,589 | 200,011 |
| Hemp drugs | 134,722 | 144,968 |
| Miscellaneous, including toddy, &c. | 5,262 | 6,192 |
| Total | 487,006 | 524,726 |

There were 41 important cases detected of smuggling opium into Burma. Excise and opium offences were more numerous than in 1908–9.

*Madras.*—The gross excise revenue during the last two years was as shown in the margin. The contract distillery supply system is in force over the greater part of Madras, and was extended during the year, but in some small tracts non-distillery systems are in force. Over nearly the whole of the Presidency a tree tax is imposed on all palm trees tapped for fermented toddy, while shops for the retail sale of toddy are separately sold by auction. The increase in 1910–11 under country spirits is ascribed to a good season, the extension of the contract distillery system, and other causes, that under toddy to increased rentals and larger collections under the tree tax, and that under opium to sale-proceeds. Local committees were formed in municipal areas, while in non-municipal areas a variety of authorities was consulted. The number and location of liquor shops were revised, and large reductions were made in the number of country spirit and arrack shops. The duty on country spirits was raised in Madras Town and in various districts.

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Country spirits | 783,806 | 790,270 |
| Toddy | 827,406 | 869,522 |
| Imported liquors | 40,201 | 35,511 |
| Opium | 84,899 | 89,839 |
| Other intoxicating drugs | 38,346 | 35,758 |
| Miscellaneous, including beer, &c. | 19,040 | 21,097 |
| Total | 1,793,698 | 1,841,997 |

The use of opium is almost restricted to the districts in the north-east of the Presidency, and to the Madras Town Circle. The quantity consumed, excluding that issued to Native States, was 41,527 seers, compared with 44,006 seers in 1909–10.

*Bombay.*—The excise revenue from Bombay (including Sind and Aden) during the last two years was as shown in the margin. The rates of still-head and other duty on country spirits was raised in several districts, as was the issue-price of opium. The number of shops for the sale of country spirits has been reduced by 57, of which two only were closed on the recommendation of the local committees. There is no explanation for the great increase in the consumption of country spirit and drugs, save the general explanation of a prosperous year, high wages, and the greater number of marriages. A special staff has been appointed to suppress illicit cocaine hawking. In Sind the contract supply system was substituted for the central distillery system.

| Gross Receipts from | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Country spirits | 867,112 | 939,344 |
| Toddy | 120,200 | 121,767 |
| Foreign and Indo-European liquors. | 24,808 | 24,436 |
| Opium | 80,649 | 89,991 |
| Other intoxicating drugs | 72,922 | 83,666 |
| Miscelloneous items | 6,932 | 6,466 |
| Total | 1,172,623 | 1,265,670 |

## Provincial Rates.

Since 1904–5 many cesses levied under the head of Provincial Rates have been abolished. In 1907–8 a further reform was adopted by the exclusion from the

Imperial accounts of the transactions of District Boards and of certain other local funds, which are raised locally, mainly for local purposes, and chiefly managed by local bodies. Where the revenues are under the orders of Government, the accounts have been absorbed in the Imperial or Provincial accounts. Where the income and expenditure are clearly under local control, the fund has been excluded, except in the case of funds specially created for local purposes and administered by Government officers in an *ex-officio* capacity. The revenue from Provincial Rates amounted in 1910–11 to £554,378, made up chiefly of the cess on lands levied in Bengal and Eastern Bengal and Assam for roads, schools, &c., and of the appropriation by the United Provinces from local rates for the payment of rural police in the Agra province.

## Stamps.

The stamp revenue is derived from two great classes of stamps. Judicial or court fee stamps are provided for by the Court Fees Act (VII. of 1870), which imposes fees on plaints, petitions, and other documents, with specified exceptions, filed before civil, criminal, or revenue courts; non-judicial stamps by the Stamp Act (II. of 1899), which imposes duties on commercial transactions recorded in writing, such as conveyances, bonds, cheques, bills of exchange, receipts, and the like. The revenue from the former class increases with the growth of litigation, and that from the latter class with the development of trade and industry. The marginal table gives the gross stamp receipts for 1909–10 and 1910–11. About one-fourth of the revenue is derived from Bengal. The increase in 1910–11 was due to an increase in the rate of stamp duties on certain commercial transactions and on probate, and also to an increase in the number of mortgage cases, which were accelerated in order to anticipate a change in the rules regarding limitation which came into force in August 1910.

| — | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Sale of court fee stamps - | 3,108,275 | 3,312,557 |
| Sale of commercial and other stamps. | 1,385,737 | 1,431,469 |
| Fines and miscellaneous - | 54,292 | 67,665 |
| Total - - | 4,548,304 | 4,811,691 |

## Customs.

Special import duties are levied on malt liquors, wines, spirits, arms and ammunition, salt and salted fish, opium, tobacco, and silver. The duties levied on alcoholic liquors were raised by the Indian Tariff (Amendment) Act of 4th March 1910 (No. VIII.). They are now: ale, beer, &c., 3 annas per gallon; liqueurs, perfumed spirits, &c., Rs. 13 per gallon; spirit used in drugs, medicines, or chemicals, Rs. 7:13:0 per gallon; other spirit, Rs. 9 : 6 : 0; sparkling wines, Rs. 3 : 12 : 0; and other wines, Re. 1 : 8 : 0 per gallon. Tobacco is dutiable at various rates, which were raised in 1910 but reduced again in 1911, the enhanced duties not having proved as productive as was expected. Salt is dutiable at Re. 1 per maund, and silver at 4*d.* per ounce. Petroleum pays 1½ annas per gallon, and iron and steel generally 1 per cent. *ad valorem*. General import duties, which had been abolished in 1882, and were re-imposed in 1894, are levied at the rate of 5 per cent. *ad valorem*. For as many articles as practicable tariff valuations are fixed, and these are revised from time to time, a general revision being made in December of each year. The chief articles on the free list are railway materials, machinery which is worked by power other than manual or animal labour, grain and pulse, living animals, coal, jute, raw cotton, raw wool, books, gold and unset precious stones. On the revival of general duties in 1894 cotton goods were at first exempted, but in December 1894 a 5 per cent. *ad valorem* duty was imposed on imported cotton goods and yarns, while an excise duty of equal amount was imposed on all yarns of counts above 20 spun at power mills in British India. In February 1896 the cotton duties were revised; all cotton yarns and thread, whether imported or manufactured in India, were freed from duty, while a uniform duty of 3½ per cent. *ad valorem* was imposed on all woven cotton goods imported from abroad or manufactured in India at power mills, the products of handlooms being exempted. A duty is levied on exported rice and rice-flour at the rate of 3 annas per maund of 82⅔ lbs. of unhusked rice (about 4*d.* per cwt.). Since the Brussels Convention took effect, sugar produced in any of the countries adhering to the Convention has been subject only to the ordinary tariff rate. Sugar entering India from the Argentine Republic and Denmark remains subject to countervailing duties.

The appended table shows the amount of the customs receipts in 1894–5 and 1895–6, when the changes above-mentioned took effect, and also those for the four most recent years.

| —— | 1894-5. | 1895-6. | 1907-8. | 1908-9. | 1909-10. | 1910-11. |
|---|---|---|---|---|---|---|
| Sea Customs, import duty: | £ | £ | £ | £ | £ | £ |
| Arms, ammunition, &c. | 10,126 | 11,403 | 13,811 | 10,744 | 10,604 | 10,326 |
| Liquors | 406,355 | 440,669 | 666,721 | 692,767 | 697,275 | 798,909 |
| Petroleum | 213,118 | 270,782 | 294,548 | 351,499 | 308,371 | 402,222 |
| Cotton manufactures | 256,631 | 776,483 | 998,582 | 778,376 | 816,679 | 935,290 |
| Silver bullion and coin | 230,557 | 231,859 | 341,658 | 417,121 | 353,800 | 1,077,882 |
| Other metals | 135,078 | 168,641 | 299,580 | 309,877 | 301,888 | 349,266 |
| Sugar | 630,450 | 686,725 | 295,431 | 340,051 | 367,485 | 411,233 |
| Other articles | | | 1,040,381 | 1,008,780 | 1,005,397 | 1,324,593 |
| Export duty on rice | 594,017 | 609,581 | 664,772 | 535,960 | 680,098 | 851,076 |
| Miscellaneous | 6,694 | 1,770 | 23,612 | 19,581 | 22,972 | 22,741 |
| TOTAL Sea Customs | 2,483,026 | 3,197,913 | 4,639,096 | 4,464,756 | 4,564,569 | 6,183,538 |
| Land Customs | 15,884 | 13,397 | 28,113 | 26,932 | 25,988 | 27,432 |
| Excise duty on cotton manufactures | 6,897 | 40,632 | 223,730 | 233,232 | 264,068 | 281,772 |
| Miscellaneous | 10,773 | 18,672 | 19,087 | 14,124 | 16,321 | 18,485 |
| TOTAL NET CUSTOMS REVENUE | 2,516,580 | 3,270,614 | 4,910,026 | 4,739,044 | 4,870,946 | 6,511,227 |

The receipts from import duties in 1910–11 showed an increase, owing both to the enhancement of duties on liquors, silver, and petroleum (the duty on tobacco, which was enhanced at the same time, had disappointing results, as stated above), and to the very great growth of trade. The excellence of the 1909–10 season in Burma accounts for the increased yield of the rice export duty.

## INCOME TAX.

The Income Tax Act (II. of 1886), applicable to the whole of India, took the place of local Acts under which various licences were required for the exercise of trades or industries. Its principal provisions are that all incomes from salaries and pensions or from interest on securities, if amounting to Rs. 2,000 per annum, shall pay 5 pies in the rupee (equal to 6¼*d.* in the £); that incomes less than Rs. 2,000 shall pay 4 pies (5*d.* in the £); that companies shall pay 5 pies in the rupee on their net profits; and that incomes under Rs. 2,000 derived from other sources shall pay according to a graded scale from Rs. 20 on an income of Rs. 1,000 to Rs. 42 on Rs. 1,999, and 5 pies in the rupee on incomes of Rs. 2,000 and upwards. All incomes of less than Rs. 1,000 (£66⅔) a year were exempted by an amending Act (XI. of 1903), which substituted that taxable minimum for the former limit of Rs. 500. The tax is not levied on incomes from land or agriculture. Military salaries of less than Rs. 500 a month (£400 a year) are exempt.

The gross revenue from income tax in 1910–11 was £1,593,301, as compared with £1,558,964 in 1909–10. The proportion of revenue derived from the different sources (shown in the margin) varies but little. The number of persons assessed to income tax is only a small fraction of the population, the total in 1909–10 being 275,623. A large proportion of the revenue is collected in Calcutta and Bombay. Income tax receipts have increased with the increase in profits and salaries resulting from commercial and industrial activity, as well as through improved administration.

| | 1910–11. |
|---|---|
| | £ |
| Ordinary collections | 1,225,028 |
| Government salaries and pensions | 294,090 |
| Interest on Government securities | 59,706 |
| Other items | 14,477 |
| | £1,593,301 |

## REGISTRATION.

*General.*—Offices exist in every district for the registration of documents, and for keeping copies thereof. *Ad valorem* fees are charged for registration, and a small fixed fee for searching the records. For registration purposes, documents are divided into

(*a*) those the registration of which is compulsory, or necessary to the validity of the deed, and (*b*) those which are registrable or not at the option of the holder, though liable, if unregistered, to be superseded by registered documents, subject to the equitable doctrine of notice. In the former class are instruments of gift of immovable property, or other non-testamentary documents which affect rights in such property of a value of Rs. 100 and upwards, and, with certain exceptions, annual or longer leases. Optionally registrable documents include those relating to immovable property not comprised in the above-mentioned classes, deeds affecting movable property, wills, and other documents. As regards transfers of immovable property, however, the situation is affected, except in the Punjab and Upper Burma, by the Transfer of Property Act (IV. of 1882), as amended by Acts of 1885 and 1904. Under the provisions of the Act of 1904 the registration of mortgages of immovable property of a lower value than Rs. 100, previously optional, was made compulsory. Practically all deeds transferring immovable property have now, therefore, to be registered. Mortgages form the largest class of instruments registered. Documents relating to the sale, mortgage or lease of immovable property, compulsorily registrable, comprise the great majority of all registrations. The number of optional registrations has steadily declined, partly owing to the operation of the amending Act of 1904.

The gross registration receipts in 1910–11 were £425,855, as compared with £430,377 in 1909–10, and the cost of the registration offices was £240,699, leaving a surplus of £185,156, against £194,661 in 1909–10. Fluctuations in the work of registration, especially of mortgages and sales, may be due on the one hand to bad harvests, plague (which affects wills and deeds of gift), high prices, and declining credit, or on the other to settlement operations, the development of new lands, the growth of towns, the expansion of trade, &c. During 1910 improved agricultural conditions caused a decline in registration which more than counterbalanced the effects of general economic progress.

*Bengal.*—There was a marked decrease of over 11 per cent. in the number of deeds registered. This is ascribed to satisfactory harvests, owing to which mortgages and sales fell off, to the completion of certain settlement operations, and to the amendment of the special tenancy laws of Chota Nagpur and the Sonthal Parganas, whereby the transfer of the rights of rayats to their holdings is restricted.

*Eastern Bengal and Assam.*—There was a decrease of 1½ per cent. in the number of deeds registered. The small number of mortgages was an indication of the improved condition of the people.

*United Provinces.*—There was a decline in the number of registrations from 303,623 to 279,479. A new scheme has been introduced for the payment of registrars by fixed grades of pay instead of partly by fixed emoluments and partly by commission as hitherto.

*Punjab.*—The number of transactions declined by over 11 per cent., both mortgages and sales having diminished. The reasons assigned are recovery from the stringency due to high prices and the malaria epidemic of 1909, and, in certain districts, the rapid growth of co-operative credit societies. The ratio of the number of transactions to the gross value involved affords evidence of a marked rise in the price of land.

*North-West Frontier Province.*—The registrations decreased in number and value. About two-thirds of the transactions were in the Peshawar district.

*Burma.*—The compulsory registrations affecting immovable property showed a rise of 9 per cent. in number and 13 per cent. in value, indicating a revival in real property transactions after the collapse which followed the "land boom" of 1904–5. The value of instruments relating to moveables increased.

*Central Provinces and Berar.*—The value of registrations again increased. The increase, however, was fortuitous, being due to the registration of documents of release in respect of a single large estate in Jubbulpore district. The number of transactions registered, on the other hand, decreased. The practice of registering small transactions is increasing.

*Madras.*—In Madras the number of registrations, which had been steadily advancing for some years, fell by 2½ per cent. to 1,236,712 in 1910, but the aggregate value involved increased.

*Bombay.*—The number of registrations increased slightly. Here, again, there was a considerable increase in the value involved, especially under compulsory registrations.

## Opium.

*General.*—The opium revenue is raised partly by the levy of a duty on all opium exported from Native States and partly by a monopoly of the production of the drug in the Ganges Valley. Poppy cultivation in British territory is now practically confined to a permitted area in the United Provinces, which is being annually further restricted in view of the progressive diminution of exports to China. The sanctioned area of cultivation for 1911–12 was about 203,000 acres, as against about 360,000 acres in 1910–11. The cultivator of opium (known as Bengal opium) in these monopoly districts must receive a licence, and is granted advances to enable him to prepare the land for the crop. He is required to deliver the whole of his outturn of crude opium at the fixed price of Rs. 6 per seer to Government agents, by whom it is despatched to the Government factory at Ghazipur (the Patna factory was closed in December 1911). The relatively small supply of prepared opium required for consumption in India, "excise opium," is made over to the Excise Department, and Rs. 8½ per seer is credited to opium revenue for the amount thus consumed. The chests of "provision" opium, for export, are sold by auction at monthly sales in Calcutta; and, in order to prevent speculation and to steady prices, the quantity to be offered at each sale during each year is notified in the previous year. The chests become the property of the purchasers immediately after sale, but must be shipped under passes granted by the Board of Revenue and subject to conditions which prevent the opium from being consumed in India. The price obtained at the Calcutta sales, less the cost of production, is the revenue from Bengal "provision" opium. Opium (known as Malwa opium) is grown in Baroda and in some of the Native States of Rajputana and Central India. The Government of India interfere in no way with its production or local consumption; but Malwa opium may not pass into British territory, whether for export by sea or for consumption, without a pass, which is granted only on payment of a heavy duty. The duty on Malwa opium intended for export was fixed at Rs. 600 per chest with effect from May 1904. At the commencement of 1912 it was raised to Rs. 1,200, and the right to export was put to monthly auction.

Towards the end of 1906 edicts were issued by the Chinese Government ordering that within 10 years the growth and the consumption of opium in China should be suppressed. Proposals were made that the Government of India should co-operate in this object by gradually restricting the amount of opium exported from India to China. By an arrangement which took effect from January 1908 the quantity of opium (including Malwa opium) exported from India was limited to 61,900 chests in 1908, 56,800 chests in 1909, and 51,700 chests in 1910. Under a new agreement, signed on 8th May 1911, the cessation of the trade will be accelerated if the native production of opium in China is suppressed before the expiry of the 10 years' period, and, besides the above-mentioned limitation of total exports, a further limitation is placed on the exports to Chinese ports. In accordance with this agreement, 44,600 chests were exported in 1911, of which 30,600 were certified for admission into China, the remaining 14,000 being exported to other countries. International conferences on the question of opium traffic were held at Shanghai in 1909 and at the Hague in 1911–12. The agreement concluded at the latter included provisions for regulating the sale of morphia and cocaine.

The opium revenue and expenditure during recent years have been as follows:—

| | 1904–5. | 1905–6. | 1906–7. | 1907–8. | 1908–9. | 1909–10. | 1910–11. |
|---|---|---|---|---|---|---|---|
| Opium Receipts:* | £ | £ | £ | £ | £ | £ | £ |
| Sales of Bengal opium | 5,079,541 | 4,703,574 | 4,895,505 | 4,401,988 | 4,234,444 | 4,546,147 | 7,245,574 |
| Duty on Malwa opium | 749,125 | 569,400 | 553,788 | 620,480 | 1,398,780 | 724,140 | 8,720 |
| Excise opium, and miscellaneous | 192,833 | 195,806 | 211,235 | 222,518 | 251,564 | 264,396 | 267,668 |
| Total | 6,021,499 | 5,468,780 | 5,660,528 | 5,244,986 | 5,884,788 | 5,534,683 | 7,521,962 |
| Opium expenditure (chiefly in Bengal) | 1,967,085 | 1,892,441 | 1,913,292 | 1,669,441 | 1,236,088 | 1,110,155 | 1,246,657 |
| Net Opium Revenue £ | 4,054,414 | 3,576,339 | 3,747,236 | 3,575,545 | 4,648,700 | 4,424,528 | 6,275,305 |

* Exclusive of the licence fees and duty on opium consumed in India, amounting in 1910–11 to £1,038,354, included under Excise.

Notwithstanding a reduction in the number of chests of Bengal opium sold for export (*see* below), the receipts in 1910–11 were higher than those of the previous three years, owing to the higher prices realised at the auction sales. Scarcity of opium in China and speculative buying caused this upward movement, and during 1910–11 opium reached the unprecedented average price of Rs. 2,892 per chest.

In 1908, when the agreement with China took effect, the Indian Government had a large reserve stock. This has been extensively drawn upon and the manufacture of new opium has been correspondingly curtailed.

*Bengal.*—The net area cultivated with the poppy in the Ganges Valley in recent years, excluding areas on which the crop failed, is shown in the margin, together with the number of chests produced and sold for export and the average price realised during the last four years. The crop in 1909–10 was an improvement on recent years.

| Year. | Acres. | No. of Chests produced. | No. of Chests Sold for Export. | Average Price in Rs. |
|---|---|---|---|---|
| 1907–8 - | 488,548 | 40,001 | 48,900 | 1,350 |
| 1908–9 - | 361,832 | 28,125 | 45,900 | 1,384 |
| 1909–10 - | 354,577 | 29,000 | 42,300 | 1,612 |
| 1910–11 - | * | * | 37,560 | 2,892 |

* Figures not available.

*Bombay.*—The number of chests of Malwa opium passed at the scales in 1910–11 was 1,401½. The quantity imported and lodged in the Bombay opium warehouses was 9,011 chests, as against 8,848 chests in 1909–10; while 1,184 chests were sold for consumption in the Presidency, including Native States. The exports of Malwa opium to China in recent years are stated in the margin. The decrease since 1908–9 is due to the limitation imposed by Government on the opium exports for each calendar year, and, as the bulk of the exports authorised for 1910 took place in the first months of that year, the figure for the financial year 1910–11 shows a still further shrinkage. The average prices for opium in the Bombay market during the year under report, including export duty, were Rs. 1,566 per chest for one-year old, and Rs. 2,308 per chest for two-year old opium, against Rs. 1,346 and Rs. 1,646 respectively in 1909–10. The rise in prices was due to restrictions on exportation, and merchants made large profits.

| | Chests Exported. |
|---|---|
| 1906–7 - | 13,322 |
| 1907–8 - | 16,858 |
| 1908–9 - | 20,695 |
| 1909–10 - | 13,192 |
| 1910–11 - | 6,711 |

# CHAPTER VI.

## AGRICULTURE.

SEASON AND CROP REPORTS. | AGRICULTURAL PRODUCE.
CO-OPERATIVE CREDIT SOCIETIES.

The present chapter gives an account of the conditions prevailing in each province during the agricultural year 1910–11, together with some information regarding the outturn of agricultural produce and the progress of co-operative credit societies.

### SEASON AND CROP REPORTS.

*Bengal.*—The rainfall was deficient in the spring, and there were floods in Bihar in the summer, consequently the autumn harvests suffered, the food crops being only 90 per cent. of normal. The winter food crops, however, were good (112 per cent. of normal), and the spring food crops normal. Food stocks were consequently sufficient in most districts. The sugar-cane crop was normal. Scanty rainfall, alternating with floods in some districts, damaged the jute crop, the outturn of which was 82 per cent. of the normal. The area cropped in 1910–11 was about 43 million acres. About 85 per cent. of the normal cropped area is under food crops. The three rice crops of the year covered almost 26 million acres, exceeding the normal by about 200,000 acres. There was some increase in the area under jute. Cattle suffered severely in some districts from contagious diseases. Agricultural improvements are being undertaken in certain districts containing water-logged lands or lands subject to inundation by sea-water. The year as a whole was distinctly satisfactory.

*United Provinces.*—The year was not quite so good as 1909–10, but better than the normal. Excessive rain and floods injured the autumn crops in some districts. There was a wide extension of the area of cultivation for spring crops, but these did not fulfil their early promise owing to bad weather in March. The total outturn of the year, however, was good, except for millet, cotton, and wheat. The wet season enabled an exceptionally large area to be twice cropped. Barley continues to be abnormally popular. The renewed epidemic of plague materially injured agricultural enterprise.

*Punjab.*—The monsoon was irregular, and there were losses on the autumn crop both through defective rain and floods; these crops on the whole, however, were not bad, though rather below normal. The winter rains were favourable, and the rabi turned out excellently, in spite of the wheat having suffered from rust. The year as a whole was a good one, though not so good as 1909–10. The total area sown was about 28½ million acres, or about 6 per cent. above normal. The proportion of the autumn to the spring harvest was as 40 to 60. Smaller areas were placed under most crops than in 1909, but the area under wheat was the largest since 1907. The gram crop was again exceptionally heavy. The cotton crop was largely spoiled by rain, but what remained fetched abnormally good prices. Failures were low in both harvests. The total area of crops sown on irrigated land was about 10⅓ million acres, including over 6¼ million acres served by Government canals. The area irrigated included about 3 million acres irrigated by 242,526 masonry wells and 28,460 non-masonry wells. No deteriorations of agricultural land or sickness of cattle have been reported.

*Punjab Canal Colonies.*—The year was favourable, though less so than 1909–10, the wheat crop having disappointed expectations; rains were rather heavy. The great prosperity of these tracts is shown by the prices paid for market sites on new railway lines, which reach £3,000 per acre in some places, and the high cost of labour. Coolie labour in parts of the Chunian Colony costs as much as Rs. 2 per

diem. The co-operative credit movement makes rapid progress. The acquisition of proprietary rights by the colonists proceeds rapidly. Despite the ravages of the plague, population is increasing. Some allotments have special conditions imposed on them as to the breeding of mules and horses and (in some cases) the upkeep of plantations. The Jhelum Colony promises to be a valuable source for the supply of remounts and mules to the army. The horse-breeding operations are a marked success, though there is some discontent at Government's insistence on the primogeniture rule in the case of holdings held on horse-breeding conditions. It has been decided to weed out the inefficient larger grantees and to encourage the peasant horsebreeders. Schemes for further colonies are in preparation.

*North-West Frontier Province.*—The monsoon rainfall was on the whole good, and the autumn harvest above normal. So was the spring harvest, despite heavy losses at Dera Ismail Khan. Hail and floods caused considerable damage, the latter chiefly in the Dera Ismail Khan district. The total area sown was 2,782,674 acres, while the area harvested was 2,348,041 acres. Wheat, the most important crop, occupied 1,026,296 acres, or 37 per cent. of the total area sown. The outturn of wheat was 25 per cent. above normal. Fodder was generally sufficient, and cattle disease was less prevalent than in 1909–10.

*Central Provinces and Berar.*—The monsoon was, on the whole, favourable and there was a record of double-cropped area. The cropped area increased by 154,000 acres, and rice and oilseeds did excellently. Wheat was normal and cotton poor.

*Eastern Bengal and Assam.*—The rains were exceptionally copious throughout the year, and floods caused some trouble. The total cropped area was 26 million acres, including over 17¼ million under rice. The jute area was 2,255,000 acres, or more than in 1909–10, but the outturn was still slightly below normal. There is a steady expansion of cultivation in Assam, where the population is sparse, and where waste land is abundant and can be brought under cultivation at low rates of revenue, and this extension was favoured by the heavy rains of the year. The year was, on the whole, a favourable one, increased prices for rice and jute having compensated the growers for deficiency of these crops.

*Burma.*—The agricultural year 1910–11 was less prosperous than 1909–10—in Lower Burma the rainfall was capricious. In Upper Burma, outside the dry zone, conditions were good; but the dry zone suffered from drought except in the irrigated districts. The figures for normal rainfall have been revised. The net area cropped fell to under 13¼ million acres, and the area on which crops failed to mature was larger than in 1909–10. The area under rice, the principal crop, was 10 million acres. The outturn of rice in Lower Burma was much below the normal. The areas devoted to pulses was larger, and to millets, oil-seeds, and ground-nuts smaller. The area under rubber increased to 20,100 acres. The irrigated area declined. The year was a fair one for cattle owners.

*Madras.*—The south-west monsoon was good and fairly distributed, and the rainfall of the north-east monsoon was, on the whole, above the average. The total crop area was over 38 million acres, which was rather over the normal. The rice crop was above normal, and covered over 10¾ million acres; other food-grains were grown on 19½ million acres. The area under cotton was more than 2 million acres, and shows an increase. The area under ground-nuts again showed a large increase, due to the commercial importance of the crop. Tobacco also increased, at the expense of castor-seed and indigo. There was a decline in the mortality of cattle from disease.

*Bombay.*—Although the monsoon conditions were rather irregular at the opening, the autumn rains were generally equal to the average, the spring rains were good, but a frost in February materially injured the rabi crops. The total area cropped, 29 million acres, was the largest for 15 years. The area under food crops slightly decreased, but this is more than compensated for by an increase of 563,000 acres under cotton. The area under oil-seed and wheat also increased, especially in Sind. The cotton crop, however, was not so good as in 1909–10, having been damaged by late rains and frost; but the rise in price must have compensated the growers for this. The yield per acre and total estimated outturn of food grains were higher than in 1909–10 in the Presidency proper, but lower in Sind, where rice showed a considerable decline.

## Agricultural Produce.

*(For further details see Statistical Abstract for British India, Tables 119 to 123.)*

The following table shows the area under the principal crops, in British India, and their territorial distribution, for 1910–11. The crop area is always greater than the area of cultivated land, owing to double cropping. The figures (which are preliminary) represent thousands of acres (omitting 000).

| Administrations. | Rice. | Wheat. | Millets (Jawar, Bajra and Ragi). | Gram (Pulse). | Other Food-Grains and Pulses. | Total Food-Grains and Pulses. | Oilseeds. | Sugar-Cane. | Cotton. | Jute and other Fibres. | Total area cropped. | Net Area cropped, (after deducting area cropped more than once). |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bengal - - | 25,806 | 1,383 | 1,012 | 1,029 | 7,815 | 37,045 | 2,322 | 377 | 69 | 618 | 43,166 | 36,801 |
| Eastern Bengal and Assam. | 17,393 | 74 | 10 | 61 | 1,229 | 18,767 | 1,910 | 181 | 72 | 2,292 | 25,994 | 20,965 |
| United Provinces - | 6,001 | 7,342 | 5,179 | 5,843 | 14,533 | 38,898 | 1,113 | 1,047 | 1,833 | 119 | 44,491 | 35,646 |
| Punjab - - | 713 | 8,885 | 3,777 | 4,494 | 4,161 | 22,030 | 1,274 | 400 | 1,250 | 49 | 28,597 | 28,295 |
| North West Frontier Province. | 43 | 1,026 | 356 | 193 | 835 | 2,453 | 92 | 33 | 34 | 1 | 2,783 | 2,775 |
| Burma - - | 9,950 | 32 | 750 | 43 | 658 | 11,433 | 1,042 | 13 | 170 | — | 13,741 | 13,188 |
| *Central Provinces and Berar. | 4,838 | 3,064 | 5,055 | 1,170 | 5,007 | 19,134 | 2,399 | 21 | 4,083 | 168 | 26,472 | 24,886 |
| Madras - - | 10,754 | 16 | 11,584 | 155 | 7,603 | 30,112 | 2,410 | 95 | 2,317 | 239 | 38,085 | 33,635 |
| Bombay and Sind - | 2,772 | 1,910 | 13,364 | 720 | 3,612 | 22,379 | 1,782 | 59 | 4,513 | 144 | 29,443 | 28,349 |
| *Minor Areas - | 83 | 46 | 92 | 57 | 227 | 505 | 47 | — | 41 | — | 660 | 565 |
| *Total 1910–11 | 78,353 | 23,778 | 41,179 | 13,765 | 45,680 | 202,756 | 14,391 | 2,226 | 13,882 | 3,630 | 253,432 | 225,105 |
| „ 1909–10 - | 78,731 | 22,770 | 42,651 | 13,153 | 46,359 | 203,664 | 14,625 | 2,442 | 13,172 | 3,582 | 253,920 | 222,912 |

* The figures for the Central Provinces and Berar and for Minor Areas are for 1909–10, no later figures being available.

Among "other food grains and pulses" may be mentioned barley, of which there are 4,997,000 acres in the United Provinces, 1,003,000 in the Punjab, and 1,318,000 in Bengal, and maize, of which there are 2,175,000 acres in the United Provinces, 1,207,000 in the Punjab, and 1,815,000 in Bengal. Out of 563,000 acres under tea, 443,000 are in Eastern Bengal and Assam, and 53,000 in Bengal, while out of about a million acres under tobacco, 293,000 are in Eastern Bengal and Assam, 152,600 in Bengal, and 218,000 in Madras.

Particulars for 1910–11 regarding some of the more important staples of Indian agriculture are given below. The figures are derived from returns of crop forecasts, and they include Native States as well as British India.

*Rice.*—Nearly one-third of the cropped area in British India is under rice. The provinces for which statistics are given in the table below ordinarily include 78 per cent. of the Indian rice crop. The figures are in thousands (omitting 000). Other provinces, notably the United Provinces, the Central Provinces, and Bombay and Sind, produce a large quantity of rice. In 1910–11 there was a slight decrease in the acreage under rice in Bengal (which produces about one-third of the total of Indian rice), but the outturn was very large despite damage by unequal distribution of rainfall. Although Bengal is the principal producer of rice, Burma is the largest exporter. The foreign exports of rice, are subject to an export duty of three annas per maund (about 6*s.* 10*d.* per ton). The Burma rice crop in 1910–11 was much below the normal. There was a large increase however in the amount exported to foreign countries; the coastwise shipments (which are chiefly to Bengal, Eastern Bengal, Bombay and Madras) showing a more than equivalent decline, owing to the excellent harvest in India proper. The export price of rice at Rangoon, which had been falling since 1908–9, took an upward turn.

| Province. | Area in Acres. | | | Yield in Tons of Cleaned Rice. | | |
|---|---|---|---|---|---|---|
| | Average of five years to 1908–9. | 1909–10. | 1910–11. | Average of five years to 1908–9. | 1909–10. | 1910–11. |
| Bengal - - | 24,457 | 26,134 | 25,793 | 9,560 | 14,655 | 14,530 |
| Eastern Bengal and Assam. | 16,041 | 16,843 | 17,000 | 6,141 | 7,124 | 7,319 |
| Madras - - | 9,145 | 7,675 | 7,787 | 3,431 | 2,868 | 3,173 |
| Burma - - | 7,083 | 7,467 | 7,449 | 3,084 | 3,209 | 2,874 |
| Total - | 56,726 | 58,119 | 58,029 | 22,216 | 27,856 | 27,896 |

*Wheat.*—Wheat occupies usually about 10 per cent. of the whole cultivated area. The bulk of it is sown in autumn and reaped in April and May. The area under wheat has greatly expanded with the extension of irrigation. More than half of it is in the Punjab and the United Provinces, and the greater part in each of these provinces is irrigated. The marginal table shows the area and yield of wheat, the figures being in thousands (omitting 000). The year was favourable in the important wheat-growing provinces, though the quality of much of the grain was spoiled by rust. The total outturn constituted a record.

| Province. | Average of five years to 1908–9. | | 1909–10. | | 1910–11. | |
|---|---|---|---|---|---|---|
| | Area. | Yield. | Area. | Yield. | Area. | Yield. |
| | Acres. | Tons. | Acres. | Tons. | Acres. | Tons. |
| Punjab | 9,183 | 3,224 | 9,245 | 3,457 | 9,302 | 3,625 |
| United Provinces | 6,266 | 2,058 | 6,491 | 2,975 | 7,320 | 2,910 |
| Central Provinces and Berar. | 3,229 | 750 | 3,064 | 949 | 3,533 | 958 |
| Bombay and Sind | 2,303 | 489 | 2,291 | 583 | 2,230 | 598 |
| Central India | 2,053 | 435 | 2,313 | 514 | 2,460 | 582 |
| Bengal | 1,247 | 368 | 1,428 | 541 | 1,383 | 600 |
| North-West Frontier Province. | 1,010 | 256 | 1,008 | 235 | 1,033 | 266 |
| Hyderabad | 1,026 | 76 | 1,097 | 68 | 1,104 | 97 |
| Rajputana | 805 | 176 | 1,005 | 243 | 1,112 | 244 |
| Elsewhere | 136 | 36 | 75 | 26 | 77 | 21 |
| Total | 27,258 | 7,868 | 28,017 | 9,591 | 29,554 | 9,901 |

The exports of wheat and wheat-flour are subject to great fluctuations, as the marginal figures show. The export demand for wheat has led to an extension of cultivation. This is very beneficial to India, partly because the crop is a profitable one, and partly because in years of scarcity the rise in prices renders the grain available for home consumption. In a famine year, like 1900–1, the export falls to a trifling quantity. The quality of grain shipped has recently improved through a reduction in the proportion of dirt, seeds, &c. intermixed with the grain. The wheat exported in one financial year is drawn mainly from the crop of the previous year, and the heaviest shipments are from May to August. Exports of flour show no tendency to increase to any considerable extent.

| — | Wheat. | Flour. |
|---|---|---|
| | Tons. | Tons. |
| 1901–2 | 366,100 | 26,500 |
| 2–3 | 514,600 | 35,900 |
| 3–4 | 1,295,600 | 40,500 |
| 4–5 | 2,150,000 | 51,700 |
| 5–6 | 937,500 | 44,950 |
| 6–7 | 801,400 | 40,900 |
| 7–8 | 880,500 | 37,200 |
| 8–9 | 109,750 | 30,100 |
| 9–10 | 1,050,600 | 35,100 |
| 10–11 | 1,266,100 | 40,200 |

*Sugar.*—The area under sugar was reported to be 2,115,000 acres in 1910–11, and the yield was estimated at 2,218,000 cwt. The area was somewhat smaller than in 1909–10, but the yield larger owing to the favourable season. Of the total area, 1,047,000 acres were in the United Provinces. Bengal contained 334,000 and the Punjab 388,000 acres. These figures, however, are not very reliable, as in many large sugar-growing areas no accurate records are available, and sugar-cane is often grown in small and irregular clumps whose extent is not easily estimated. To the sugar-cane cultivated in British India must be added the extensive crops grown in Native States. In estimating the total output of sugar, account must also be taken of the large production of palm sugar, chiefly in Bengal, Madras, and Burma. By no means all of the sugar produced is converted into "refined" sugar; a considerable quantity both of cane in the raw state and of the unrefined sugar or *gur* is consumed as food, but the increasing demand for refined sugar, which is supplied chiefly from abroad, is prejudicially affecting the *gur* industry. The question of improving methods of cultivation and of manufacture both of *gur* and refined sugar is receiving careful attention. Imports of sugar (including confectionery and molasses) are given in the margin. The large increase in the imports from Java is remarkable. The countervailing duties imposed in 1899 and subsequent years have not been levied since 1903 on the produce of countries which adhered to the Brussels Sugar Convention and abolished sugar bounties.

| Countries. | 1908–9. | 1909–10. | 1910–11. |
|---|---|---|---|
| | Tons. | Tons. | Tons. |
| Java | 358,035 | 441,692 | 517,103 |
| Mauritius | 139,818 | 136,650 | 162,302 |
| Austria-Hungary | 93,904 | 38,276 | 35,239 |
| Other Countries | 12,155 | 13,855 | 24,458 |
| Total | 603,912 | 630,473 | 739,102 |

*Tea.*—The marginal table furnishes an estimate of the cultivation and the production of tea in India during the years 1908 to 1910; for Southern India and Travancore the figures are not reliable. Since 1885 the area under cultivation has almost doubled, and the production has increased by over 260 per cent. The production of green tea was 3,095,000 lbs. in 1910, as against 2,678,000 lbs. in 1909. During 1910 the tea gardens employed 519,863 persons permanently and 80,745 temporarily. The capital invested by joint stock companies in tea production is returned at £16,884,379, and, in addition, a large but unknown quantity of private capital is invested. The prices of the principal grades of tea showed on the whole an increase in 1910. A marked feature of the Indian tea trade in recent years has been the large increase in sales to Russia, which took, in 1910–11, 31 million lbs. direct, about 5 million lbs. *viâ* the United Kingdom, and a large but unknown quantity *viâ* China. The exports of Indian tea by sea during the last three years are returned as shown in the margin. About 2 million lbs. were also exported by land, chiefly to Afganistan.

| Province. | Area in thousands of Acres. | | | Production in thousands of Lbs. | | |
|---|---|---|---|---|---|---|
| | 1908. | 1909. | 1910. | 1908. | 1909. | 1910. |
| Eastern Bengal and Assam. | 433 | 438 | 443 | 211,435 | 227,095 | 223,836 |
| Bengal - - | 54 | 53 | 53 | 14,994 | 13,166 | 14,412 |
| Madras - - | 15 | 16 | 18 | 4,436 | 5,326 | 5,645 |
| United Provinces | 8 | 8 | 8 | 2,010 | 2,206 | 2,045 |
| Punjab - - | 9 | 9 | 9 | 1,438 | 1,414 | 1,419 |
| Travancore and Cochin. | 27 | 29 | 30 | 12,594 | 13,354 | 14,323 |
| Burma - - | 2 | 2 | 2 | 458 | 246 | 247 |
| Total - - | 548 | 555 | 563 | 247,365 | 262,807 | 261,927 |

| Countries. | 1908–9. | 1909–10. | 1910–11. |
|---|---|---|---|
| | Millions of Lbs. | Millions of Lbs. | Millions of Lbs. |
| United Kingdom - - | 177·4 | 189·2 | 183·1 |
| Russia - - - - | 19·4 | 24 | 31·1 |
| Australia and New Zealand | 8·8 | 8·6 | 9·3 |
| Canada - - - - | 8·2 | 8·9 | 8·4 |
| China - - - - | 5·8 | 6·2 | 8·3 |
| Ceylon - - - - | 3·9 | 3·8 | 4·6 |
| Turkey in Asia - - | 3·3 | 2·6 | 3·6 |
| United States - - - | 2·1 | 2·5 | 2·3 |
| Other Countries - - | 5·1 | 3·6 | 3·7 |
| Total - - - | 234·0 | 249·4 | 254·4 |

The growing appreciation of the superior richness and strength of Indian tea is shown by the increased imports into this country. In 1875 the United Kingdom drew 86 per cent. of its supplies from China, and 13 per cent. from India, while in 1910 only 5·7 per cent. came from China and 54 per cent. from India. If the quantities retained for home consumption be taken, the proportion of India in 1910 was 57 per cent., and of China 3·6 per cent.

*Jute.*—India has a virtual monopoly of the production of jute, which is chiefly grown in Northern and Central Bengal and the eastern districts of Eastern Bengal. There was an increase in the cultivated area in 1911. The estimated acreage and outturn in recent years are as shown in the margin. These figures do not include statistics for Nepal, Madras, and Upper India, the outturn of which was reported to be 78,200 bales. The harvest of 1909 was much under-estimated. The total crop in 1910, according to the Bengal Chamber of Commerce, amounted to 8,010,672 bales. The year 1911 was on the whole prosperous. For the five years ended 1909, the average price per bale at Calcutta was Rs. 47–12, the price in 1907 being as high as Rs. 61–6 per bale. In 1909 the average price fell to Rs. 33–6, in 1910 it rose to Rs. 34–2, and there has been a sharp rise since.

| Year. | Acreage. | Outturn in Bales (of 400 lbs. each). |
|---|---|---|
| 1909 | 2,876,600 | 7,206,600 |
| 1910 | 2,937,800 | 7,932,000 |
| 1911 | 3,106,400 | 8,234,700 |

The total Indian consumption of raw jute in 1910–11 was estimated at 4,479,600 bales (of 400 lbs.). The exports were 13 per cent. smaller in quantity than in 1909–10, but 3 per cent. higher in value. In addition there was a large export of jute manufactures, as the marginal table shows (figures in thousands, omitting 000). Of the raw jute exports in 1910–11, 37 per cent. went to the United Kingdom, 23 per cent. to Germany, 10 per cent. to the United States, and over 11 per cent. to France. The fluctuations in exports of raw jute are more marked than those in exports of jute manufactures.

| Year. | Raw Jute. | | Jute Manufactures. | Total Exports. Value. |
|---|---|---|---|---|
| | Quantity. | Value. | Value. | |
| | Cwts. | £ | £ | £ |
| 1908–9 | 17,880 | 13,223 | 10,491 | 23,714 |
| 1909–10 | 14,608 | 10,059 | 11,398 | 21,457 |
| 1910–11 | 12,732 | 10,327 | 11,330 | 21,657 |

*Cotton.*—One of the most important crops for the grower, the Indian manufacturer, and the exporter, is cotton. The estimated area and yield of cotton in India are returned as shown in the table below for the last three years. The figures are in thousands (omitting 000). The season was disappointing. While the area was about 10 per cent. greater in 1910–11, the total estimated yield was no less than 18 per cent. less. Doubt, however, is thrown on forecasts of yield by comparing them with a computation based on the total of the net exports and the Indian consumption of cotton, which for the year to 30th September 1911 was 4,303,000 bales.

| Province. | 1908–9. | | 1909–10. | | 1910–11. | |
|---|---|---|---|---|---|---|
| | Area (Acres). | Yield in Bales (of 400 lbs. each). | Area (Acres). | Yield in Bales (of 400 lbs. each). | Area (Acres). | Yield in Bales (of 400 lbs. each). |
| Madras | 1,576 | 162 | 1,569 | 180 | 1,873 | 235 |
| Bombay, with Native States, Sind, and Baroda. | 6,500 | 1,383 | 6,683 | 1,765 | 7,613 | 1,547 |
| United Provinces | 1,392 | 426 | 1,241 | 384 | 1,347 | 348 |
| Punjab and North-West Frontier Province. | 1,616 | 336 | 1,468 | 403 | 1,418 | 314 |
| Central Provinces and Berar | 4,176 | 766 | 4,167 | 1,070 | 4,487 | 629 |
| Hyderabad | 2,902 | 307 | 3,401 | 461 | 3,562 | 293 |
| Burma | 204 | 41 | 198 | 32 | 167 | 28 |
| Central India | 978 | 144 | 1,068 | 221 | 1,349 | 237 |
| Rajputana | 389 | 79 | 464 | 148 | 465 | 143 |
| Bengal | 64 | 14 | 67 | 17 | 68 | 18 |
| Eastern Bengal and Assam | 97 | 21 | 99 | 18 | 101 | 31 |
| Mysore | 65 | 3 | 81 | 6 | 100 | 10 |
| Ajmere-Merwara | 40 | 9 | 39 | 13 | 45 | 20 |
| Total | 19,999 | 3,691 | 20,545 | 4,718 | 22,595 | 3,853 |

The exports of raw cotton from India in recent years have been as shown in the margin. The exports of 1910–11 were mainly furnished from the crop of 1909–10, when the season was favourable. Prices were considerably higher than in the preceding year. The bulk of the Indian cotton exported goes to Japan and Western Europe. Very little goes to England, as Lancashire requires a finer class of cotton than India can as yet readily supply.

| | Cwts. | | £ |
|---|---|---|---|
| 1908–9 | 6,798,400 | valued at | 13,179,000 |
| 1909–10 | 8,968,000 | ,, | 20,955,000 |
| 1910–11 | 8,686,400 | ,, | 24,037,000 |

*Oil seeds.*—The area under, and the yield of, the main oil-seed crops of India are given approximately in the margin. The figures are in thousands (omitting 000). The rape and mustard-seed crop is grown chiefly in the United Provinces, the Punjab, Eastern Bengal and Assam, and Bengal; linseed in the United Provinces, the Central Provinces, Bengal, and Hyderabad; sesamum

| Seed. | Average of five years to 1908–9. | | 1909–10. | | 1910–11. | |
|---|---|---|---|---|---|---|
| | Area. | Yield. | Area. | Yield. | Area. | Yield. |
| | Acres. | Tons. | Acres. | Tons. | Acres. | Tons. |
| Rape and mustard | 5,953 | 905 | 6,633 | 1,270 | 6,548 | 1,260 |
| Sesamum | 4,320 | 329 | 4,934 | 464 | 4,933 | 448 |
| Linseed | 3,252 | 313 | 3,188 | 427 | 3,721 | 557 |
| Groundnut | 829 | 320 | 1,039 | 454 | 952 | 503 |

(til or jinjili) in the United Provinces, the Central Provinces, Bombay, Madras, and Hyderabad; while the groundnut area lies chiefly in Madras, Bombay, and Burma. The general seasonal conditions were on the whole unfavourable, except for linseed and groundnuts.

Exports of seeds have been as shown in the margin for the last three years (in 000 cwts.). The quantity and value exported in 1910–11 exceeded those of 1909–10 by 14 and 34 per cent. respectively. The value, £16,749,000, was a record. About 55 per cent. of the seeds were shipped from Bombay, 16 per cent. from Sind, and 19 per cent. from Bengal. The principal markets for Indian oil seeds are the United Kingdom, France, Germany, Belgium, Italy, and Austria-Hungary. In linseed India suffers from the competition of Argentina and Russia. The trade in Indian cotton seed, which has now attained large dimensions, is of comparatively recent growth.

| Seed. | 1908-9. | 1909-10. | 1910-11. |
|---|---|---|---|
| | Cwts. | Cwts. | Cwts. |
| Linseed - | 3,210 | 4,677 | 7,411 |
| Rape - - | 2,766 | 6,629 | 6,593 |
| Cotton - | 3,683 | 5,650 | 5,980 |
| Sesamum - | 1,657 | 2,984 | 3,247 |
| Groundnuts - | 1,782 | 3,243 | 3,690 |
| Castor - | 1,650 | 1,901 | 2,148 |
| Poppy - | 790 | 853 | 862 |
| Other sorts - | 705 | 1,210 | 1,052 |
| Total - | 16,243 | 27,147 | 30,983 |

## Co-operative Credit Societies.

*(For further details see Statistical Abstract for British India, Table* 117.)

These societies were started by Government as an experiment, in order that the poorer classes, and more particularly the cultivators, might be enabled to borrow money at reasonable rates, and might at the same time learn self-help and self-dependence. The registrars are Government officials, and Government aid is given in various ways, but aid is also enlisted from non-official gentlemen with local influence.

The Co-operative Credit Societies Act of 1904 laid down the main lines on which the movement should be run. An amending Act was passed in March 1912 in the light of the experience which had been obtained in the interval. It extends the Act so as to cover all co-operative societies, whether credit societies or of other kinds (*e.g.*, societies for production or distribution); it abolishes the statutory distinction between "urban" and "rural" societies, substituting the more scientific distinction of limited and unlimited liability; it relaxes the restrictions on unlimited societies dividing their profits, and recognises unions of societies, which are, as a matter of fact, an important feature in the system, though not recognised in the Act of 1904.

Co-operative credit societies are divided into "central," "urban," and "rural," the first two being mostly limited liability societies and the last unlimited. Under each head there is the utmost variety of type.

*Central societies* finance or supervise groups of other societies which individually are too small to obtain capital by dealing direct with capitalists and joint stock banks or to afford skilled supervision. They are of two kinds—central *banks* and central *unions*. The former exist primarily for the purpose of financing their subsidiary societies; the latter do not exercise banking functions, but are federations for the purpose of inspection, control, and mutual guarantee. Often, however, the functions of a central bank and a central union are combined in a single body, which is then known as a central banking union. These latter are numerous in Bengal and are growing in favour elsewhere. Usually in central banks the majority of the shares are held by their affiliated societies. In Madras, however, the prevailing type of central bank is one in which the shares are held by individuals. The Madras banks do not supervise the societies which they finance, but trust to the provincial registrar to see that the latter are in a sound condition. This system is successful financially, but is not truly co-operative. In the United Provinces there are "district banks," which differ from the above types in that they deal with individuals as well as with societies. The former class of business, however, is being discontinued. The district banks were of great use in the early stages of the movement, but they encouraged the growth of affiliated societies too dependent on themselves, and the present policy is to substitute for these dependent societies real rural societies capable of self-management. Of late many central banking unions of the Bengal type have sprung up in the United Provinces, and they are beginning to form in Madras. In Burma there are only two central banks, but there are 24 non-banking unions. In Bombay a new departure has recently been made in the form of a central bank with a Government guaranteed interest on its debentures (*see* below).

*Rural Societies.*—These form a majority of the whole number. They work with unlimited liability—a principle which has no terror for the ryot, who has long been accustomed to it in his family relationships. It must, however, be accompanied with the power to exclude all in whom the majority have no confidence. As a general rule there is no difficulty in financing these societies (so far as members' deposits and other forms of locally-subscribed capital are insufficient) through the central societies described above. There is a great variety in the rates of interest charged to members in the different provinces, but they are considerably lower than those charged by the local money-lenders. The latter have naturally shown some hostility to the movement, but there are signs that they are adapting themselves thereto by lowering their rates of interest, and are even availing themselves of the societies. £21,000 was thus deposited by money-lenders in the single district of Jullundur in the Punjab in 1910–11. The chief objects for which loans are required are for purchase of cattle, payment of land revenue, and repayment of money-lenders' debts. Little money is borrowed for non-productive purposes, such as expenditure on marriage and other ceremonies. There are two main types of rural society—those which admit share capital and those which do not. In Bengal and the Central Provinces the strict Raiffeisen principle is adhered to, which prohibits all distribution of profits, but in other provinces it has usually been found that more popularity is achieved by permitting members to acquire shares which will eventually yield dividends. In the United Provinces, the Punjab, and Burma, shares are paid for by instalments spread over 10 years, and dividends will not be paid till the 11th year. A quarter of the profits must go to the reserve. The Act only permits the distribution of profits by unlimited liability societies subject to sanction by the Local Government.

*Urban Societies.*—These are mostly limited liability concerns. There are some societies of clerks, while others have been formed among artizans for the purpose of purchasing materials, &c. In Bombay special attention is given to societies for weavers and leather-workers.

Co-operative societies for productive and distributive purposes exist, but not as yet in any numbers. Some of the rural credit societies, however, have extended their activities in these directions; they market the produce of their members, purchase agricultural machinery for their use, &c. The Provincial Agricultural Department find these societies admirable intermediaries for the propagation of improved methods of cultivation, &c.

| | Central. | | | Urban.* | | | Rural. | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. of Societies. | Total Member-ship. | Working Capital. | No. of Societies. | Total Member-ship. | Working Capital. | No. of Societies. | Total Member-ship. | Working Capital. |
| | | | £ | | | £ | | | £ |
| Madras - - - | 6 | 420 | 132,400 | 30 | 9,596 | 35,600 | 560 | 34,086 | 159,600 |
| Bombay - - | 7 | 2,013 | 30,800 | 62 | 4,985 | 22,700 | 187 | 13,197 | 36,800 |
| Bengal - - - | 8 | 335 | 12,700 | 53 | 4,735 | 15,100 | 654 | 30,180 | 45,200 |
| United Provinces - | 12 | 584 | 40,200 | 138 | 33,808 | 161,000 | 1,108 | 59,639 | 129,700 |
| Punjab - - - | 9 | 640 | 46,800 | 10 | 1,254 | 2,900 | 1,074 | 59,529 | 195,900 |
| Burma - - - | 2 | 678 | 45,900 | 27 | 1,788 | 17,500 | 450 | 11,340 | 85,100 |
| E. Bengal and Assam | 2 | 130 | 7,700 | 40 | 5,185 | 31,800 | 501 | 18,304 | 53,000 |
| C. Prov. and Berar | 12 | 804 | 11,600 | 8 | 1,247 | 5,300 | 280 | 7,203 | 16,500 |
| Coorg and Ajmer - | 1 | 78 | 3,500 | — | — | — | 80 | 3,300 | 8,400 |
| Total 1910–11 | 59 | 5,682 | 331,600 | 368 | 62,598 | 291,900 | 4,894 | 236,778 | 730,200 |
| Total 1909–10 | 33 | 3,722 | 159,200 | 288 | 57,765 | 228,100 | 3,106 | 162,836 | 442,100 |

* Includes "District Banks," which also perform the functions of Central Societies.

The above table shows how great has been the progress of the movement during a single year. The rapidity of its success becomes evident when it is remembered that in March 1905 there were only 35 rural and six urban societies. The movement is almost everywhere passed out of the experimental stage; many of the societies are self-supporting and they are winning more and more the appreciation and confidence of the people. Loans are well and punctually repaid. The financial support of the State is being gradually withdrawn—in several provinces State loans have been altogether discontinued. Of the £730,000 working capital of the rural societies, £466,000 represents loans from non-members and other societies, £96,000 share capital, £105,000 members' deposit, £23,000 reserve, and £40,000 loans from Government.

In Bengal the movement is essentially rural, though urban societies also show a tendency to increase, which is all the more gratifying as being entirely spontaneous, the efforts of the provincial Registrar being at present concentrated on rural societies. Bengal still adheres to the strict Raiffeisen type, on which model many new societies were formed in 1910–11, chiefly in the old centres. The policy has been adopted of grouping these societies with the object of gradually combining them into central banking unions. Eight of the latter have been formed. These unions have, when possible, cash credit with a joint-stock bank, and thus their members can obtain a command of capital in an elastic form—an important consideration with agriculturists. The unions admit individuals as well as societies as shareholders, not so much for the sake of the capital which they bring as to obtain a business-like element in the management.

In Eastern Bengal and Assam several of the urban societies, besides lending to their own members, finance rural societies. There are also two central banks and two unions. Money-lenders' rates of interest are particularly high in this province, and, though the rural societies lend at from 12½ to 18¾ per cent., a large part of their loans are devoted to paying off debts at far more exorbitant rates. The apathy with which the movement had to contend at the outset has disappeared. Practically all the societies are being run at a profit, but some which were originally financed by Government are markedly less successful than the others.

In the United Provinces the growth of central banking unions (*see* above) was a marked feature; there are now 12 such unions and 14 district banks. Much attention is being paid to the training of supervisors for employment by the banks and unions and on the estate of zamindars and courts of wards where societies are being established. Small urban credit societies for artizans and tradesmen, with unlimited liability, are rapidly increasing. The rate of interest charged by new rural societies is from 15 to 15⅝ per cent. Their membership has risen in a year from 47,778 to nearly 60,000; they exist now in 33 districts.

In the Punjab the growing confidence of the public in the movement is shown by the large deposits of non-members. Societies exist in all districts but five, and consolidation rather than expansion is now aimed at. In six districts there are Central Banks, some of which are starting sub-inspectors to supervise their client societies. There are also two unions. Five industrial societies (four for weavers) have been started. There is an increase in the number of honorary inspectors.

In the Central Provinces a full-time Registrar was appointed in October 1910. Rural societies are formed mostly on a non-share basis. The movement extended remarkably in the two districts when it had already been well-established; elsewhere attention was directed more to re-organization.

In Burma the first Joint Agricultural and Co-operative Conference was held in July 1911. The Pakkoku Central Bank has been reorganised and has reduced its rate of interest from 15 to 9 per cent. A second central bank has been formed at Mandalay. There are 24 central unions; some are extremely useful as supervising and propagandist bodies; others are as yet little more than federations for the purpose of mutual guarantee. Loans to societies require the sanction of the provincial Registrar, who is guided by the advice of these unions.

In Madras the average rate of interest charged by the societies is 9½ per cent., as against an average of at least 15 per cent. charged by the money-lenders. The growth of the movement is the more remarkable in that, owing to the limitations of the registrar's resources, large areas of the Presidency have not been touched. There are five central banks, the advantages and deficiencies of which have been already described. One union on the Bengal model has been formed. Most of the rural societies have share capital, the unit value of the share being usually 1 or 2 rupees.

In Bombay the urban side of the movement has been specially developed. Many local conferences were held, which are said to be paving the way for administrative unions. The Bombay Central Co-operative Bank, which has been founded on the initiative of leading local capitalists, has a Government guarantee of its 4 per cent. debentures. It lends only to co-operative credit societies at an interest which must not exceed 8 per cent. It may only lend with the approval of the registrar. Half of its surplus profits above 6 per cent. are eventually to be devoted to rebates on the interest paid by borrowing societies.

# CHAPTER VII.

## FORESTS.

*(For further details see Statistical Abstract of British India, Tables 59, 60, and 125.)*

*General.*—Systematic conservancy of the Indian forests is based on the Forest Act of 1878, which gave the Government powers of dealing with private rights in the forests of which the chief proprietary right is vested in the State. Special forest laws have also been enacted for each province, and a staff of trained forest officers has been organised. Forest administration is based upon the principle that State forests should be administered for the public benefit; they are worked, therefore, with a view to combining all reasonable facilities for their use by the public with the protection necessary for their preservation as sources of fuel and timber and as retainers of moisture in the soil. The forests are classified as "reserved," "protected," or "unclassed." In the reserved areas the control of the Forest Department is more complete than in the protected or unclassed forests. In the latter, the area of which cannot be precisely stated, are included large tracts of uncultivated land, especially in Burma, much of which will probably become agricultural land. Among the most important measures of conservancy are the prevention, so far as possible, of the fires which are liable to devastate the forests, the plantation and reproduction of timber and firewood, the maintenance of a supply of seed-bearing trees, and the regular reproduction of timber of the more valuable kinds. At present the reserved (including leased) forests cover an area of about 96,000 square miles; and there is scope for further reservation in Madras and Burma. Outside the reserves there are about 150,000 square miles of State forests, including 9,000 square miles of protected forests. Some part of this area will eventually be brought within the "reserve" area, and all of it is, with more or less completeness, managed and worked for the benefit of the people, of their cattle, and of the public revenue. The forests dealt with in this chapter are, almost exclusively, State forests. The limited areas of private forest, except where they have been leased to the Government, are being gradually exhausted; and few private communal or village forests have been successfully brought under conservancy. In every province a very few of the most valuable timber trees are declared to be reserved trees, and can only be felled under special licence. Outside the reserves, the country folk are generally allowed to obtain from the State forests timber, bamboos, firewood, and grass for their own use without charge; inside the reserves, persons specially licensed are allowed to extract timber or other produce, on payment of fees, though all rights recognised by the forest settlements are preserved to the public. Offences against the forest laws consist chiefly of illicit grazing and unauthorised felling or removal of produce. Forest revenue is raised by royalties on, or by the sale of, timber or other produce and by the issue at specified fees of permits to graze cattle, or to extract for sale timber, firewood, charcoal, bamboos, canes, and minor forest produce. The gross revenue derived from forests in 1910–11 was £1,829,557, including £455,806 and £1,261,703 received for timber and other produce removed from the forests by Government agency and by consumers (or purchasers) respectively. The charges amounted to £1,033,261, leaving a net revenue of £796,296. Some of the Native States, such as Kashmir, Mysore, Travancore and Baroda, have also organised a systematic forest administration, from which they derive a considerable revenue. The following paragraphs treat of forest administration in each province.

*Bengal.*—At the end of 1910–11 the areas of reserved and protected forests were respectively 4,254 and 3,698 square miles, representing over 6 per cent. of the area of the province. Working plans have been, or are being, provided for 5,696 square miles. With regard to fire protection, 17,248 acres were burnt—a satisfactory decrease seeing that it was a hot and dry season in the plains. The cultivation of *ficus elastica* for rubber will probably not be continued, as it does not seem likely that it can compete with Para rubber. The yield of timber was nearly 5 million cubic feet, an increase on that of 1909–10. The out-turn of fuel, 29 million cubic feet, was smaller. The above figures, however, would be larger but for a change in the method of estimating

bulk in the important district of the Sunderbans. The number of bamboos taken from the forests was nearly 11 millions. Only a small part of the total out-turn is exploited by departmental agency. The practice is growing of selling outright the growth over specified areas instead of charging royalties on the number of trees removed. From a commercial standpoint the year's working was less satisfactory than that of 1909–10, the surplus revenue being £31,286 as against £35,013. The number of recorded offences, 2,518, showed an increase, which is attributed to greater vigilance on the part of forest officers. There was an increase from 106 to 138 in the number of workmen killed by man-eating tigers in the Sunderbans forests. Efforts are being made to decentralise work by delegating more power to the Conservator and to the divisional forest officers. The pay of the provincial service has been improved.

*United Provinces.*—The areas of reserved and protected forests at the end of 1910–11 were 3,958 and 9,100 square miles respectively, in addition to 156 square miles of leased forests and 30 square miles of unclassed forests. Natural reproduction was fair, and good in the eastern circle. Working plans have yet to be compiled for 95 square miles. Fire protection was very successful. The yield of the forests was $7\frac{1}{4}$ million cubic feet of timber, $12\frac{3}{4}$ million cubic feet of fuel, and $16\frac{1}{2}$ million bamboos, besides minor produce. In the eastern circle there was a realisation of large quantities of dry timber killed by the drought of 1908. The removal of forest produce is almost entirely carried on by outside agency. The resin and turpentine industry in the Naini Tal and Chakrata divisions is in a most satisfactory condition, partly due to a rise in prices. The financial results were better owing to the continued improvement of the timber trade, and the surplus revenue for the year was £90,000. Breaches of the forest rules were considerably above the average, but this is partly because a more complete system of registering cases without reference to the future development of each case is now adopted.

*Punjab.*—The reserved forest area at the end of 1910–11 comprised 1,952 square miles, including 110 square miles under military or other control. The protected forests aggregated 5,222 square miles, while there are 1,319 square miles of unclassed forest and 365 square miles of leased forests. The area was reduced during the year, mainly by the disforestation of about 10,000 acres, which had been reserved with the intention of eventually abandoning them for colonisation purposes in the Shahpur and Multan divisions. Working plans are still required for 3,974 square miles. The year was less favourable as regards forest fires chiefly owing to incendiarism in the Rawalpindi division. The out-turn of timber was about $4\frac{3}{4}$ million cubic feet, an increase upon 1909–10, while the fuel out-turn was nearly 25 million cubic feet. The surplus of the year amounted to £51,600. The difficulty of protecting forests from damage by excessive grazing has become greater as cattle and pastoral animals have largely increased and waste lands have been curtailed through irrigation. Only about 17 per cent. of the forest area is entirely or partially closed to grazing. Experiments are in progress to ascertain how much grazing the hill forests will stand. The continued increase in the number of forest offences is disquieting. A central factory for resin has been established near Lahore, and experiments were made as to its tapping and manufacture. It is hoped in time to put the industry into the hands of private individuals.

*North-West Frontier Province.*—At the end of 1910–11 the reserved forest area was 250 square miles, besides 121 square miles of civil protected forests. Working plans have now been framed for 236 square miles. There was an increase in the out-turn of produce, the quantities being 697,000 cubic feet of timber and 386,000 cubic feet of fuel. The net revenue was £10,245, considerably more than in 1909–10. There was a marked increase in the number of forest offences, due to growing value of forest produce and the decrease in the quantity available outside the reserves.

*Burma.*—The reserved forest area in Burma was increased during 1910–11 by 386 square miles to 26,077 square miles; the unclassed forests, much of which will ultimately be brought under cultivation, covered 111,150 square miles, a decrease of 1,857 square miles. Working plans for 2,415 square miles were in preparation or awaiting sanction. The area of reserved forests not under working plans at the end of the year was 16,269 square miles. The majority of the teak-bearing forests are now being managed under working-plans or girdling schemes, though lack of labour or establishment make it impossible to carry out all the improvements projected in the sanctioned plans. The area in which fire protection was attempted covered

7,466 square miles, of which 278 were in the event burnt. Rubber, teak, and other plantations were maintained, and further experiments were made with the cultivation of rubber. Para rubber is said to be growing very successfully in the Bhamo division. The Mergui rubber plantation was disposed of to a company. The number of teak trees girdled was 112,500 and the quantity of teak extracted was 309,800 cubic tons (including 262,100 by purchase contractors), an increase of 25,200 cubic tons. The price of teak ruled high. Of other timbers, 327,100 cubic tons were extracted, besides 343,200 cubic tons of fuel. The area under teak worked by the Department is being strictly curtailed in favour of the system of extraction by firms under purchase contracts. The surplus revenue amounted to £440,200. There was an increase in the number of forest offences. The Kheddah Department has been closed since the end of the year. The provincial forest service was reorganised.

*Central Provinces and Berar.*—The total area of forests at the end of 1910–11 was 21,384 square miles. The total length of forest boundaries is 35,778 miles, of which 92 per cent. has been artificially marked. Special attention has been given to the making of roads which will facilitate the utilisation of forest resources. Further working plans were sanctioned or in progress; new plans are still required for 2,724 square miles. Revenue officers are now deputed to consult with the working-plans officers with the view of securing due attention to agricultural interests—a system which is giving good results. The fire season was unfavourable. The area under fire protection was 11,649 square miles. The number of forest offences decreased. There was a large increase in the out-turn of forest produce. The amount of timber removed from the forests during the year, chiefly by private persons, was about 5 million cubic feet, that of fuel about 27 million cubic feet. The surplus revenue was £32,100, a decrease of £2,300 on 1909–10. As usual, a large part (43 per cent.) of the revenue was yielded by grazing and fodder-grass. There was a decrease in the income derived from extraction of produce by Government agency.

*Eastern Bengal and Assam.*—The forest area at the end of 1910–11 included 6,491 (an increase of 7) square miles of reserved and 4 miles of protected forests, or about 6½ per cent. of the total area of the province, and 22,416 square miles of unclassed forests. The unclassed forests consist largely of grass or treeless waste in Assam; they are all open to grazing, and part of their area is more or less regularly under cultivation. Progress was made in bringing the reserved forests under systematic management. Working plans are still required for 4,832 square miles. Special fire protective measures extended over 1,293 square miles. There was little damage from fire, and there was a large decrease in the number of forest offences, which consist chiefly of unauthorised fellings. The Charduar and Kulsi plantations of rubber (*ficus elastica*) produced satisfactory results, and its cultivation is being extended to the Lushai Hills and elsewhere. The gross yield of the forests amounted to 7 million cubic feet of timber and 13¾ million cubic feet of fuel, besides 25 million bamboos and minor produce. The surplus revenue amounted to £55,171. It is found more profitable to sell standing timber to contractors than to exploit it by Government agency. The aim is to attract large traders who will work on an extensive scale. Five new forest villages were established during the year.

*Madras.*—The total area of forests on 30th June 1911 was 20,030 square miles, of which 18,629 square miles were classed as reserved forests. The settled and systematically protected forests cover nearly one-seventh of the area of the Presidency. Detailed working plans were sanctioned or in preparation or under revision for 2,510 square miles. The area burnt was less than half what it was in 1909–10. There were 26,489 forest offences, of which 76 per cent. were compounded. Natural reproduction was, on the whole, good. The yield of the forests was about 3 million cubic feet of timber and 22 million cubic feet of fuel, besides 39 millions of bamboos and minor produce. The surplus revenue was £36,893. Both out-turn and surplus were smaller than in 1909–10, chiefly owing to a dull market. The controlling establishment was increased. The provincial service was reorganised. Some areas have been experimentally entrusted to the management of village panchayats for fuel and fodder.

*Bombay.*—The area of the reserved forests was 14,006 square miles at the end of 1910–11, while that of the protected forests was 1,042 square miles. The area for which working plans have been sanctioned is about 58 per cent. of the total area.

Satisfactory progress was made with the cultivation of rubber in the Thana district. Forest offences were more numerous than last year. Fire protection was satisfactory. About 700 square miles of reserved forest, chiefly in the Deccan, is being converted into grazing land, tree regeneration having proved impracticable thereon. The yield of timber and fuel was $5\frac{3}{4}$ and $37\frac{1}{4}$ million cubic feet respectively, and the number of bamboos $13\frac{1}{2}$ million. The surplus revenue amounted to £107,859.

*Coorg.*—The area of reserved forests at the end of 1910–11 was 520 square miles. The dry season resulted in severe fires. Of the reserves, 69 per cent. were open to grazing. The "spike" disease continued to affect sandal trees. The out-turn of the forests was 511,830 cubic feet of timber and fuel. The surplus revenue was £10,800.

*Andamans.*—The area of reserved forests in the Andamans is 156 square miles, while the area of unclassed State forests and waste lands is 1,796 square miles. Of the total area, 1,952 square miles, working plans for 317 square miles have been sanctioned. Attention was paid to the reproduction of padouk trees, both naturally and artificially, and to the experimental cultivation of rubber. A system of disposing of timber by tender for 12 months was introduced with good results. The out-turn of timber was 883,675 cubic feet (of which 330,000 cubic feet were exported), of fuel 1,057,800 cubic feet, and of bamboos 926,623. The surplus revenue was £10,372.

# CHAPTER VIII.

## MINERAL PRODUCTION AND MINING.

(*For further details see Statistical Abstract for British India, Table* 222; "*Quinquennial Review of the Mineral Production of India during the years* 1904 *to* 1908" *in Records of Geological Survey, Vol.* XXXIX., 1910; *and* "*The Mineral Production of India during* 1910" *in Vol.* XLI., 1911.)

### Mineral Production.

*General.*—During recent years much has been done to develop the mineral resources of India. The minerals that have been chiefly worked are those which can be consumed by direct process on the spot, or which, owing to their abundance and cheapness, are suitable for export in the raw state. The output of minerals in India (including Native States) has shown a marked increase in the last 11 years, the estimated value of that for the quinquennium 1898–1903 being £4,330,000, for the quinquennium 1904–1908 £6,716,000, for the year 1909 £7,688,000, and for 1910 £7,700,000. Coal fell heavily in value though not in quantity. Manganese ore and salt showed the greatest increase. By far the most important minerals are coal and gold, the production of which in 1910 was valued at £2,456,000 and £2,202,000 respectively, followed by manganese ore, £849,000, petroleum, £836,000, and salt, £565,000. These estimates of values relate to all production for which returns are available, but as they represent in some cases spot values, in others values at the sea-ports, they cannot serve for comparison with the production of other countries, but only for the comparison of one year with another in India itself.

*Coal.*—Coal is the most valuable mineral product worked, and is by far the largest supporter of labour. The production, which had risen without a break since 1882 to $12\frac{3}{4}$ million tons in 1908, declined owing to speculation and over-production in 1907–8. It declined further to 11,870,000 tons in 1909, but rose again in 1910 to 12,047,000 tons. The total value, however, declined, owing to a fall in price, from £2,780,000 in 1909 to £2,456,000. The marginal table shows the territorial distribution of the output for 1909 and 1910. The areas not enumerated include the Punjab, Baluchistan, and Bikanir, in which production has hitherto been fluctuating and not very progressive.

| Province or State. | 1909. | 1910. |
|---|---|---|
| | 000 Tons. | 000 Tons. |
| Bengal | 10,661 | 10,779 |
| Hyderabad | 443 | 506 |
| Eastern Bengal and Assam | 306 | 297 |
| Central Provinces | 238 | 220 |
| Central India | 121 | 130 |
| Other provinces or states | 101 | 115 |
| Total | 11,870 | 12,047 |

Bengal produces about 90 per cent. of the coal won in India, the Jherria coal-field (opened in 1893) providing in 1910 5,795,000 tons, nearly half the total output, the Raniganj 4,213,000 tons, and the Giridih 679,000 tons.

The exports of Indian coal, 988,000 tons, were 44 per cent. over those of 1909. Ceylon and the Straits Settlements are the two principal markets. About 92 per cent. of the Indian production was consumed at home, 32 per cent. of the output (3,823,000 tons) being absorbed by the railways, whose coal consumption is now Indian to the extent of nearly 99 per cent.

Prices in 1908 were the highest so far recorded. In 1909 and again in 1910 they fell considerably owing to the over-production of previous years above referred to. The price per ton of Bengal coal at the pit's mouth was 4*s.* 4*d.* in 1909 and 3*s.* 9*d.* in 1910—a normal figure. The coal now being worked is near the surface, and labour is cheap; as a consequence Indian coal has a lower value at the pit's mouth than that of any other country.

The average number of persons daily employed in coal mines during 1910 fell to 116,100. As the result of improved mining methods, the output per head has grown from 89 tons in 1904 to 104 tons in 1910, but even this is a somewhat low degree of efficiency if tested by European standards. The labourers include chiefly landless day labourers. In some old established centres a mining caste is being evolved, and allotments of land are made to miners.

*Gold.*—The production of gold amounted to 573,120 ounces, valued at £2,202,486, in 1910, compared with 574,816 ounces, valued at £2,204,866, in 1909. By far the

greatest part of the gold (547,746 ounces) came from the Mysore gold-fields. The Hutti mine in Hyderabad produced 15,762 ounces in 1910. The Dharwar gold companies have decided to abandon their operations owing to disappointing results at deep levels.

*Petroleum.*—Since the introduction of European drills the production of petroleum in Burma has rapidly risen. Increased activity in the Twingon Reserves of the Yenangyaung oil-field, where rich oil-sands were struck at greater depths, led to a further large rise in the output during 1909. In 1910, however, there was a considerable decline in the total production of crude petroleum from 234 to 215 million gallons. About 3¼ million gallons of oil were extracted in Eastern Bengal and Assam; and the rest of the product, except a trifling amount from the Punjab, came from Burma, the principal oil-fields being at Yenangyaung, the oldest field, in Magwe district, and at Singu, in Myingyan district. The former of these yielded 175 and the latter 32 million gallons. Oil has also recently been struck at Minbu. Oil refineries have been erected in Rangoon, and the various constituents of the crude oil are put on the market in the form of kerosene, petrol, lubricating oil, batching oil, fuel oil, candles, and paraffin wax.

*Manganese.*—Manganese ore is now chiefly obtained from extensive deposits in the Central Provinces, Madras, Bengal, Mysore, and Bombay. Owing to a rise of price in 1910 production, which had declined in 1909, rose again, the quantity being 801,000 tons. The increase was chiefly in the Central Provinces. The ores worked are for the most part exceedingly rich, as the high cost of transport renders the working of the lower-grade ores unprofitable, and India is now probably the chief producer of high-grade ore. There is no smelting plant in the chief producing centres, and the ore is shipped in bulk exactly as mined, to be smelted in the United Kingdom, Germany, or the United States. The exports in 1910 were 586,577 tons.

| Province or State. | 1909. | 1910. |
|---|---|---|
| | Tons. | Tons. |
| Central Provinces | 381,285 | 552,239 |
| Madras | 138,454 | 120,607 |
| Mysore | 39,895 | 42,518 |
| Central India | 10,324 | 12,664 |
| Bombay | 17,657 | 30,921 |
| Bengal | 55,060 | 41,958 |
| Total | 642,675 | 800,907 |

*Salt.*—The production of salt in India (excluding Aden) in 1910 was 1,485,628 tons, as compared with 1,189,063 tons in 1909. About 91 per cent. is derived from sea-water, sub-soil water, and lakes, and only 9 per cent. is obtained by mining and quarrying. Most of the rock-salt, amounting to 140,600 tons, came from the Punjab Salt Range.

*Saltpetre.*—Statistics of the saltpetre industry, now collected for the first time, show that the production in 1910 was 15,541 tons, of which 15,398 tons were exported. The exports in 1909 were 20,247 tons. Behar is the principal seat of this industry.

*Mica.*—India has for many years been the leading producer of mica, turning out more than half the world's supply. The output returns for mica are unreliable, but the amount exported (39,612 cwt.) shows a considerable increase over 1909. The mines are situated in Bengal, Madras, and Rajputana.

*Lead.*—This is produced in Burma, chiefly in the Northern Shan States. The total output in 1910 was 31,211 tons, as against 15,843 tons in 1909. The value (including the silver contained in the ore) was £167,990.

*Rubies.*—In 1910 the reported production of rubies, including small quantities of sapphire and spinel, amounted to 262,019 carats, valued at £58,849, compared with 258,304 carats, valued at £58,649, in 1909. This output was wholly derived from the Mogok mines of the Burma Ruby Mines Company. Rubies are also obtained by native miners working under licence from the Company. Rubies are not at present in great demand in Europe, and the market was dull during the year.

*Other Minerals.*—Among minerals not above referred to is jadeite, which was exported in 1910 to the value of £64,747 from the Myitkyina district of Burma, and wolfram, of which deposits have recently been discovered, chiefly in Tavoy, and of which the total output in 1910 was valued at £38,873. The output of iron ore dropped from 83,456 to 54,626 tons. In 1907 the Tata Iron and Steel Company was formed with a large capital to exploit iron ore lands in Orissa and the Central Provinces, and commenced work early in 1912. Large developments in production are anticipated. There is a small output of graphite and tin.

## Mining Concessions.

Since Rules were issued in 1899 to govern the grant of exploring and prospecting licences and of mining leases, the number of concessions in lands in which the mineral rights have been retained by Government (exclusive of Native States) has rapidly increased, mainly owing to the enhanced interest in manganese in Bombay and the Central Provinces. The concessions granted in Government lands amounted in 1899 to 60 only, but in 1908 the number had risen to 816. In 1909 the total number of concessions fell to 693, and in 1910 to 635, viz., 102 exploring licences, 401 prospecting licences, and 132 mining leases. In some areas, including nearly all the coal-bearing land in Bengal, mineral rights have been conceded permanently with the surface ownership.

By the Rules exploring licences can be obtained for one year, but they give no exclusive or preferential rights, and there is no prohibition against free exploration in unoccupied and unreserved land. Prospecting licences are granted over restricted areas for a period of one year, renewable with the consent of the Local Government for a second and third term. Such licences carry an indefeasible claim for a subsequent mining lease for any mineral other than precious stones over the same or a restricted area. The Rules are undergoing revision.

In practically all Native States the mineral rights belong to the respective rulers, and concessions are granted for mining and prospecting under rules that involve a certain amount of supervision by the Government of India.

## Inspection of Mines.

The Indian Mines Act, 1901, applies to the whole of British India, and regulates all mineral workings which are either true mines worked underground, or open pits, quarries, or excavations more than 20 feet deep and any part of which extends beneath the superjacent ground.

The number of mines of all kinds coming under the Act in 1910 was 781, of which 443 were coal mines, including 418 in Bengal, 227 mica mines, including 168 in Bengal, and 41 manganese mines. There was a considerable reduction in the number of coal mines worked. The mines gave employment to an average daily number of 144,680 persons (3,970 more than in 1909), of whom 91,713 were men, 47,963 women, and 5,004 children under twelve years old; 89,778 persons worked underground. The labour material is very unformed, possesses little skill, and requires constant supervision.

There were 117 fatal accidents, causing 186 deaths, during the year 1910, an increase of 34 in the deaths as compared with 1909. Of the deaths from accidents, 160 occurred in coal mines. Better supervision would substantially lessen this loss of life.

Four explosions, accounting for 27 lives, have disproved the theory that Indian mines are immune from danger from fire-damp. There is a steady advance in the system of "goafing", or getting pillars in coal mines—a safer and better system than leaving the pillars ungotten, while cutting them away until they were barely sufficient to support the roof.

Three prosecutions were instituted in 1910, resulting in two convictions.

## Mining Education, &c.

Progress in mining education is being maintained, and the need for it is still urgent. The number of students taking the Mining Course at Sibpur College during the session 1910–11 was 14, of whom five gained diplomas. Lectures were delivered at four centres in the Bengal coal-fields. 325 students were registered in 1909–10, and 18 qualified for certificates of competency as mine managers. The lecturer engaged from England for these peripatetic courses has returned, but the experiment has been so successful that it is being continued in the form of lectures by colliery managers. Ambulance classes have been started on the coal-fields, which were well attended. The Mining and Geological Institute of India, which was inaugurated at the end of 1905, now has 300 members. The Lower Bengal Mining Board met twice. The Edward Medal was bestowed for the first time in connection with mining in India, the recipient being a native engine-driver.

# CHAPTER IX.

## MANUFACTURES.

INDUSTRIAL DEVELOPMENT.
LARGE INDUSTRIES.
FACTORY LEGISLATION.
FACTORY INSPECTION.
PATENTS AND DESIGNS.

(*For further details see Statistical Abstract for British India, Tables* 218 *to* 221.)

### INDUSTRIAL DEVELOPMENT.

In recent years there has been much discussion in India regarding the advantages of encouraging manufactures for the purpose of securing greater diversity of occupation in a country that so largely depends on agriculture. The movement for promoting home industries, known as the *swadeshi* movement, has, in its legitimate forms, received official support. There are standing orders that stores required by Government shall, as far as practicable, be purchased in India. In March 1909 it was ordered that purchasing officers shall in all cases give preference to articles manufactured in India from Indian materials (or from imported materials), provided that the quality is sufficiently good and the price not unfavourable. From time to time monographs are published dealing with the position in each province of some leading industry. Thus monographs have recently appeared on paper-making, the manufacture of wire and tinsel, the preservation and curing of fish in Madras, the salt-boiling industry in Burma, and the hand-loom and leather industries in Bombay. In some provinces the local governments have instituted special inquiries to ascertain the prevailing industrial conditions, with a view to promoting those industries that appear, when properly organised, to give promise of success. A "Review of the Industrial Position and Prospects in Bengal in 1908" has been prepared by Mr. J. G. Cuming, I.C.S., a "Survey of the Industries and Resources of Eastern Bengal and Assam" by Mr. G. N. Gupta, I.C.S., "Notes on the Industries of the United Provinces" by Mr. A. C. Chatterjee, I.C.S., and a "Report on the Industrial Survey of the Central Provinces and Berar" by Mr. C. E. Low, C.I.E. Industrial conferences and exhibitions have been held, and a knowledge of Indian manufactures has become more widely diffused. The United Provinces Exhibition held at Allahabad in 1910–1911 was on a larger scale than the Industrial and Agricultural Exhibitions of previous years, and its success will doubtless have a stimulative effect on the industries of the province. An expert engineer has recently been engaged in connection with the sugar-extracting industry in the United Provinces. Endeavours are being made in all provinces to improve the important and widespread domestic cotton industry by introducing better types of hand-looms and superior methods of manufacture, in order that their products may compete more successfully with goods manufactured by power looms in India or imported from abroad. The Chrome Tannery started for instructional purposes by the Madras Government has been made over to a native state. In Bengal improved methods are taught at the Serampur Weaving School and at outlying centres. In the United Provinces schools have been established at weaving centres under Government auspices, and some small hand-weaving factories have sprung up as the result. Scholarships for the higher commercial and technical training of Indians abroad are offered by the Government and by private associations.

### LARGE INDUSTRIES.

In this chapter attention must be mainly confined to the larger industries, concerning which alone statistical information is available. By far the most important of these are the cotton and jute manufacturing industries, which have made rapid progress in recent years, as the following figures show:—

| Year. | Cotton Mills.* | | | | Jute Mills. | | | |
|---|---|---|---|---|---|---|---|---|
| | No. | Paid-up Capital. | Looms. | Spindles. | No. | Paid-up Capital. | Looms. | Spindles. |
| | | £ | | | | £ | | |
| 1883–4 - | 71 | 5,428,000 | 15,412 | 1,842,184 | 23 | 2,124,000 | 6,139 | 112,650 |
| 1888–9 - | 98 | 6,166,000 | 19,288 | 2,504,666 | 25 | 2,599,000 | 7,419 | 151,207 |
| 1893–4 - | 125 | 7,504,000 | 26,876 | 3,338,229 | 27 | 2,701,000 | 9,180 | 191,228 |
| 1898–9 - | 158 | 10,070,000 | 34,775 | 4,261,520 | 33 | 3,821,000 | 13,421 | 279,482 |
| 1903–4 - | 187 | 10,428,000 | 41,997 | 4,900,106 | 38 | 4,954,000 | 18,400 | 376,718 |
| 1906–7 - | 197 | 11,513,000 | 55,291 | 5,230,020 | 44 | 6,330,000 | 25,284 | 520,504 |
| 1907–8 - | 207 | 12,031,000 | 62,251 | 5,437,198 | 54 | 7,019,000 | 27,244 | 562,274 |
| 1908–9 - | 212 | 12,604,000 | 69,791 | 5,623,542 | 56 | 7,413,000 | 29,525 | 607,458 |
| 1909–10 - | 219 | 12,725,000 | 74,757 | 5,780,124 | 60 | 7,674,000 | 31,418 | 645,862 |
| 1910–11 - | 226 | 13,437,000 | 78,984 | 5,961,950 | 58 | 7,667,000 | 33,169 | 682,527 |

* The figures in this table relate to British India only (Native States and Pondicherry being excluded).

*Cotton Mills.*—The 250 cotton mills at work in all India in 1910–11 included 105 exclusively spinning, 19 exclusively weaving, and 126 both spinning and weaving mills. The majority of the mills, viz., 166, were in the Bombay Presidency, and they contained 70 per cent. of the spindles and 78 per cent. of the looms. Bombay City contained 84 mills and Ahmedabad 54. The industry is to a large extent in the hands of Indians. In spite of some unfavourable years, the industry, as the above table shows, has continued steadily to develop.

The outturn of yarn in recent years in British India is shown in the margin. The mills of the Bombay Presidency produced nearly 74 per cent. of the total, Bengal 6 per cent., Madras 7 per cent., the United Provinces 6 per cent., and the Central Provinces and Berar 5 per cent. It will be observed that yarns of counts above No. 25 constitute nearly 9 per cent. of the total production. They are chiefly spun in the Bombay mills. Imports of yarn amount to only about 5 per cent. of the Indian production, but a very small proportion is of counts under 25. The phenomenal activity of the cotton industry in 1905–6 was followed by a decline in prosperity during 1906–7. Shortage of crops and high prices of food have prevailed ever since. Revival of the demand from China—the principal market for Indian yarn—during 1908–9 and 1909–10 has been more than counteracted by the unprecedented rise in the price of raw material—a rise further accentuated by the failure of what promised to be a good crop in 1910–11. Few mills in Bombay yielded more than nominal returns during the latter year.

| Year. | Counts Nos. 1 to 25. | Above No. 25. | Total. |
|---|---|---|---|
| | Million Lbs. | Million Lbs. | Million Lbs. |
| Average: 1896–7 to 1900–1 - | 423·9 | 20·1 | 444·0 |
| 1901–2 to 1905–6 - | 537·4 | 39·9 | 577·3 |
| Year 1906–7 - | 581·4 | 49·2 | 630·6 |
| „ 1907–8 - | 556·6 | 57·2 | 613·8 |
| „ 1908–9 - | 572·0 | 57·9 | 629·9 |
| „ 1909–10 - | 543·1 | 50·4 | 593·4 |
| „ 1910–11 - | 523·9 | 53·1 | 577·0 |

Owing to the vicissitudes of the spinning business increased attention has been devoted to weaving, which has greatly extended. The production in 1910–11 furnished a record. The production of woven goods in recent years in British India only is given in the margin. Weaving is concentrated to an even greater degree than spinning in the Bombay mills, which in 1910–11 produced about 86 per cent. of the total output of cloth; the United Provinces and Central Provinces each contributed about 4 per cent.; and Madras about 3 per cent. These fabrics are mainly grey and bleached piece-goods. As the marginal table shows, however, there is a decided tendency to increase the output of other and finer fabrics, this tendency being specially marked in Madras. About 10 per cent. of the cotton piece-goods produced was exported.

| Year. | Grey and Bleached. | Other kinds. | Total. |
|---|---|---|---|
| | Million Lbs. | Million Lbs. | Million Lbs. |
| Average: 1896–7 to 1900–1 - | 80·6 | 11·3 | 91·9 |
| 1901–2 to 1905–6 - | 109·9 | 25·0 | 134·9 |
| Year 1906–7 - | 129·6 | 29·4 | 159·0 |
| „ 1907–8 - | 147·6 | 33·7 | 181·3 |
| „ 1908–9 - | 147·2 | 37·0 | 184·2 |
| „ 1909–10 - | 167·2 | 48·2 | 215·4 |
| „ 1910–11 - | 178·9 | 52·0 | 230·9 |

*Jute Mills.*—While the cotton mills are largely owned by Indians and are mainly situated in Western India, jute mills are nearly all concentrated in Bengal in the vicinity of Calcutta, and are mostly in the hands of English firms. As will be seen from the statistical table above, the jute industry is of smaller dimensions than the cotton industry, but it has enjoyed almost uninterrupted and increasingly rapid progress, the number of looms and spindles having nearly doubled in the last decade. Although the number of mills in 1910–11 shows a slight decrease, the number of looms and spindles has continued to increase. The number of persons employed was 216,390. The paid-up capital employed by these mills was £9,825,000, including debentures; of this total about £3,280,000 was sterling capital. Hessian looms are now more numerous than sacking looms.

*Woollen Mills.*—There were four woollen mills at work at the end of 1910, containing 768 looms and 29,369 spindles, and producing goods valued at about £296,000 for the year. The growth of the industry is slow and irregular. The fabrics consist chiefly of cloth for the army and the police. The produce of Indian mills represents only a small share of the total trade in woollen goods, for, although the demand for woollen goods in India is not very large, certain varieties can be produced much more easily and cheaply by European mills. There are many small hand-loom factories for weaving carpets and rugs, whose production is in the aggregate extensive.

*Paper Mills.*—There were eight paper mills at work at the end of 1910, producing during the year about 59 million lbs. of paper, valued at £542,500. Most of the official foolscap, blotting paper, notepaper, and envelopes is now obtained locally; but the development of paper-making in India has been checked by the competition of cheap wood-pulp paper from Europe, imports of which have increased much faster than the home production.

*Breweries.*—At the end of 1910 there were 24 breweries, which produced during the year 4,191,000 gallons of beer. The largest brewery is at Murree in the Punjab Himalayas, and its output was 569,000 gallons. About 38 per cent. of the whole Indian production was brewed in the Punjab. The quantity of beer imported in 1910 was 4,354,000 gallons.

*General Remarks.*—The total number of factories worked by mechanical (including electrical) power, owned by companies or private persons in British India and returned as registered under the Act was 2,146 in 1910. A classified list of the more important is given in the margin. This does not include factories not worked by mechanical power, employing 92,573 persons. Of the 1,057 factories for the ginning, cleaning and pressing of cotton there were 382 in the Central Provinces and Berar, 301 in Bombay, 191 in the Punjab, and 131 in the United Provinces. In Bombay about 190,000 operatives are employed in different branches of the cotton industry. In Madras and the Central Provinces and Berar, as in Bombay, cotton weaving and spinning are the principal industries. In Bengal and Eastern Bengal and Assam there is an increasing number of jute presses. Silk filatures and indigo factories are found chiefly in Bengal. Flour mills are most numerous in the Punjab and sugar factories in the United Provinces. Rice mills and saw mills are most numerous in Burma, rice and teak being the two principal products of the province. They are mainly in European hands and are the only large industries in Burma organised and worked by western methods. Printing presses are numerous in Bombay, Bengal, and Madras. Iron and brass foundries (including engineering workshops) number 33 in Bengal and 14 in Bombay. A large hydro-electric scheme has been commenced at Lanavla, which will, it is hoped, supply power to the Bombay mills. The Tata Iron and Steel works in Chota Nagpur commenced work early in 1912. There were 98 factories within the scope of the Act belonging to the State and to local bodies. Among these were 16 printing presses, 16 railway workshops, 3 canal foundries and engineering workshops, and 17 military arsenals and factories.

| — | No. of Works. | *No. of Operatives. |
|---|---|---|
| Cotton presses | 1,057 | 99,077 |
| Cotton mills - | 215 | 216,883 |
| Jute presses - | 103 | 28,327 |
| Jute mills - | 59 | 204,053 |
| Rice mills - | 224 | 20,368 |
| Flour mills - | 32 | 3,111 |
| Sugar factories | 21 | 5,424 |
| Saw mills - | 96 | 10,583 |
| Iron and brass foundries - | 58 | 24,368 |
| Indigo factories | — | 17,337 |
| Tile factories - | 14 | 5,293 |
| Printing presses | 18 | 13,971 |
| Dockyards - | 9 | 10,392 |
| Railway workshops, &c. - | 47 | 72,000 |
| Petroleum Refineries - | 6 | 8,735 |

* Including operatives in certain factories not included in the Factory Act returns.

## Factory Legislation.

The law at present in force respecting factories in India is Act XV. of 1881, as amended by Act XI. of 1891. The changes introduced by the latter were, briefly: (1) The law could be applied to establishments employing 20 hands or over, instead of only to those with 50 hands or over, factories of the latter description being brought in all cases under the Act; (2) the minimum age for child labourers was raised from seven to nine years, and the maximum age from 12 to 14 years; (3) the maximum hours for child labour in any one day were reduced from nine hours to seven hours, and night-work was forbidden; (4) the hours of actual labour for women workers, which were unrestricted under the Act of 1881, were limited to 11 hours a day, with intervals amounting to 1½ hours; (5) a rest period during work was prescribed for all labourers.

Owing to complaints regarding the long hours worked in many mills, the Government of India appointed a small Committee, with Commander Sir H. P. Freer-Smith, R.N., late Superintending Inspector for Dangerous Trades in England, as chairman, to conduct a preliminary inquiry into the conditions of labour in textile factories. The Committee recommended that the working hours of adult males should be limited to 12 hours a day; that before children or adults are allowed to work in factories certificates of age and physical fitness should be required; that night-work of women should be prohibited; and that Medical Inspectors should be appointed. The Committee's report was presented to Parliament in 1907 (Cd. 3617).

The conclusions of this Committee formed the basis of an investigation by a representative Commission, whose report was presented to Parliament in 1908 (Cd. 4292). This report disclosed the existence of abuses, particularly in connection with the employment of children, and the excessive hours worked by operatives generally in textile factories. The majority of the Commission deprecated a statutory limitation of the working hours of male adults. But they recommended the formation of a class of "young persons," between 14 and 17 years of age, whose hours should be limited to 12, and considered that this would indirectly secure a 12 hours' day for male adults. They also recommended that the hours of work for children should be reduced from 7 to 6 hours and that the hours for women should be assimilated to those for "young persons," night-work being prohibited for both classes. They recommended that children should be certified as to age and physical fitness.

The recommendations of the Committee and of the Commission having been considered by the Government of India and the Local Governments, a bill was introduced in July 1909 to amend and consolidate the law relating to factories. The measure, which was passed in March 1911 (Act No. XII.), provides, subject to certain exceptions, that in textile factories: (1) No person shall be actually employed for more than 12 hours, no woman for more than 11 hours, and no child for more than 6 hours in any one day; (2) no person shall be employed before 5.30 in the morning or after 7 in the evening; (3) the period for which mechanical or electrical power is used shall not in any one day exceed 12 hours. In other than textile factories the working hours of children remain at 7. Further provision is made for securing the health and safety of the operatives and for making inspection more effective. The new Act will come into force on 1st July 1912.

## Factory Inspection.

The statistics of the factories inspected during 1910 are as follows:—

| Province. | Number of Factories working, and liable to be inspected. | Average Number of Hands employed daily. | | | | Number of Factories. | | | Number of Persons convicted of breach of Act. | Number of Accidents reported. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Men. | Women. | Children. | Total. | With Sunday Holiday. | With other Weekly Holiday. | Exempted or worked otherwise. | | Fatal. | Serious. | Minor. | Total. |
| Bengal | 255 | 236,617 | 39,217 | 31,049 | 306,883 | 210 | 1 | 41 | 7 | 79 | 431 | 758 | 1,268 |
| Eastern Bengal and Assam | 120 | 22,054 | 892 | 518 | 23,464 | 36 | 19 | 53 | — | 2 | 19 | 15 | 36 |
| United Provinces | 220 | 42,667 | 6,326 | 1,856 | 50,849 | 134 | 37 | 27 | 11 | 5 | 72 | 145 | 222 |
| Punjab | 228 | 24,804 | 3,951 | 871 | 29,626 | 160 | 55 | 13 | — | 8 | 35 | 309 | 352 |
| North West Frontier Province | 5 | 132 | 67 | — | 199 | 4 | 1 | — | — | — | — | 1 | 1 |
| Burma | 280 | 44,251 | 999 | 374 | 45,624 | 225 | 39 | 16 | 2 | 15 | 131 | 189 | 335 |
| Central Provinces and Berar | 409 | 24,001 | 13,877 | 1,543 | 39,421 | 181 | 171 | 1 | 29 | 1 | 38 | 137 | 176 |
| Madras | 188 | 43,317 | 6,302 | 4,725 | 54,344 | 135 | 45 | 8 | 3 | 2 | 28 | 212 | 242 |
| Bombay | 558 | 176,740 | 43,401 | 10,816 | 230,957 | 358 | 184 | 3 | 18 | 27 | 112 | 1,489 | 1,628 |
| Ajmere-Merwara | 8 | 10,362 | 508 | 274 | 11,144 | 5 | 3 | — | — | — | 20 | 99 | 119 |
| Total, 1910 | 2,271 | 624,945 | 115,540 | 52,026 | 792,511 | 1,448 | 555 | 162 | 70 | 139 | 886 | 3,354 | 4,379 |
| Total, 1909 | 2,204 | 619,015 | 114,455 | 52,440 | 785,910 | 1,410 | 508 | 163 | 58 | 123 | 897 | 3,016 | 4,036 |

In 1910 the number of factories under the Act increased by 39 in the United Provinces, 23 in the Central Provinces, 22 in Bombay, and 20 in Madras. The health of the operatives was on the whole good. There was a general improvement in the frequency of inspections and in the strict enforcement of the Act. The law was generally well observed as regards sanitation and water supply and fencing of machinery. Accidents are largely due to the carelessness of operatives. In the Punjab and Eastern Bengal and Assam, however, constant attention had to be paid to the condition of the latrine accommodation in some of the factories. In Bengal the appointment of a Certifying Surgeon to certify the age of children in the jute mills has had excellent results. An automatic stop-gear for jute softening machines is now compulsory, and there have been no accidents with these machines since April 1910. The most difficult regulations to enforce are those relating to the employment of women and children: the Punjab, the United Provinces, and the Central Provinces suffer especially from frequent breaches of this part of the Act and the difficulty of discovering them. A Committee has been appointed to consider the subject of the ventilation of cotton factories in Bombay.

### Patents and Designs.

The laws for granting exclusive privileges to inventors and for protecting patents and designs were amended and consolidated by the passing of the Inventions and Designs Act (V. of 1888).

The total number of applications for leave to file a specification under the Act in 1910 was 667, or 28 less than in 1909, but the number filed (618) shows an increase. Of the applications 36 were refused or abandoned and 138 were undecided at the end of the year. Only 62 of the applications were made by natives of India, 137 were made by other residents in India, while 468 came from outside India, of which 254 were from the United Kingdom. The range of inventions for which protection was sought was, as usual, very wide, but those relating to chemical appliances and preparations and railways predominated. Exclusive privileges were kept alive by payment of prescribed fees in 663 cases, while 495 ceased. Applications for the registration of designs numbered 36, of which 26 were allowed.

In view of the growing volume of patent work a new Patent and Designs Act, assimilating the Indian law more closely to that of the United Kingdom, was passed in March 1911, and came into force in January 1912. It provides a simpler, more direct, and more effective procedure in regard to the grant of patents and to their subsequent existence and operation, and reduces the fee for the registration of designs. It encourages the inventor, while giving better protection to him and to the public.

# CHAPTER X.

## TRADE.

*(Detailed information regarding the Trade of British India is annually furnished in three Parliamentary Bluebooks: Tables of the Trade of British India, Review of the Trade of India, and Statistical Abstract for British India, Tables* 136 *to* 184.)

### Foreign Seaborne Trade.

This section deals only with the trade of British Indian ports, and excludes the trade of certain native States on the west coast, the trade of French and Portuguese possessions, and precious stones and pearls re-exported by post.

The foreign seaborne trade of India has greatly increased during the last 30 years, as the marginal figures relating to private merchandise show (values in thousands of pounds at 15 rupees to the pound). It will be observed that the percentage growth has been greater in imports, though the absolute increase has been larger in exports.

| Year. | Imports. | Exports of Indian Merchandise. |
|---|---|---|
| Average— | 000£ | 000£ |
| 1880–1 to 1884–5 | 33,754 | 52,964 |
| 1885–6 „ 1889–90 | 40,798 | 59,168 |
| 1890–1 „ 1894–5 | 45,647 | 67,623 |
| 1895–6 „ 1899–1900 | 46,956 | 69,100 |
| 1900–1 „ 1904–5 | 55,745 | 87,336 |
| 1905–6 „ 1909–10 | 77,281 | 111,874 |
| For the year 1910–11 | 86,240 | 137,218 |

The foreign seaborne trade of British India during the five years to 31st March 1911 was as follows :—

| | 1906-7. | 1907-8. | 1908-9. | 1909-10. | 1910-11. |
|---|---|---|---|---|---|
| Imports : | £ | £ | £ | £ | £ |
| Private Merchandise | 72,205,055 | 86,596,729 | 80,843,818 | 78,038,365 | 86,236,011 |
| Government Stores | 5,956,410 | 4,428,635 | 5,008,301 | 3,727,225 | 2,900,982 |
| Total Merchandise | 78,161,465 | 91,025,364 | 85,852,119 | 81,765,590 | 89,136,993 |
| Treasure, Private | 18,133,990 | 21,880,286 | 15,087,902 | 24,950,716 | 26,468,837 |
| „ Government | 11,585,884 | 6,309,379 | 74,876 | 64,933 | 45,853 |
| Total Treasure | 29,719,874 | 28,189,665 | 15,162,778 | 25,015,649 | 26,514,690 |
| Total Imports | 107,881,339 | 119,215,029 | 101,014,897 | 106,781,239 | 115,651,683 |
| Exports : | | | | | |
| Private Merchandise : | | | | | |
| Indian Produce and Manufactures | 115,625,135 | 115,727,127 | 99,904,843 | 122,997,607 | 137,218,095 |
| Foreign ditto | 2,322,693 | 2,511,557 | 2,113,820 | 2,259,090 | 2,840,700 |
| Government Stores | 71,940 | 84,921 | 76,800 | 55,428 | 53,056 |
| Total Merchandise | 118,019,768 | 118,323,605 | 102,095,463 | 125,312,125 | 140,111,851 |
| Treasure, Private | 3,808,672 | 3,630,819 | 3,971,116 | 4,262,220 | 4,746,352 |
| „ Government | 3,497 | 1,514 | 242,382 | 3,807 | 5,956 |
| Total Treasure | 3,812,169 | 3,632,333 | 4,213,498 | 4,266,027 | 4,752,308 |
| Total Exports | 121,831,937 | 121,955,938 | 106,308,961 | 129,578,152 | 144,864,159 |
| Total Seaborne Trade | 229,713,276 | 241,170,967 | 207,323,858 | 236,359,391 | 260,515,842 |
| Net Exports of Merchandise | 39,858,303 | 27,298,241 | 16,243,344 | 43,546,535 | 50,974,858 |
| Net Imports of Treasure | 25,907,705 | 24,557,332 | 10,949,280 | 20,749,622 | 21,762,382 |
| Net excess of Exports (balance of trade) | 13,950,598 | 2,740,909 | 5,294,064 | 22,796,913 | 29,212,476 |

The very favourable agricultural season in India, together with a general revival of demand throughout the world, resulted in a general increase in the export of raw materials, while the prosperous condition of the country stimulated imports.

*Principal Imports and Exports.*—The following table shows the values of the chief articles of merchandise imported and exported during the last three years (in thousands of pounds) :—

| Principal Imports. | | | | Principal Exports (Indian Merchandise). | | | |
|---|---|---|---|---|---|---|---|
| Articles. | 1908–9. | 1909–10. | 1910–11. | Articles. | 1908–9. | 1909–10. | 1910–11. |
| | 000£ | 000£ | 000£ | | 000£ | 000£ | 000£ |
| Cotton manufactures | 22,911 | 24,034 | 27,802 | Cotton, raw | 13,179 | 20,955 | 24,037 |
| „ yarn | 2,433 | 2,213 | 2,091 | Seeds | 7,785 | 12,484 | 16,749 |
| Metals | 8,669 | 8,511 | 9,658 | Rice | 10,592 | 12,163 | 15,490 |
| Sugar | 7,271 | 7,681 | 8,777 | Jute manufactures | 10,491 | 11,398 | 11,330 |
| Machinery and millwork | 4,411 | 3,374 | 3,154 | Jute, raw | 13,223 | 10,059 | 10,327 |
| Railway material | 4,947 | 3,627 | 2,830 | Wheat and wheat-flour | 1,241 | 8,869 | 9,060 |
| Mineral oils | 2,606 | 2,097 | 2,259 | Hides and skins | 8,312 | 9,080 | 8,723 |
| Hardware and cutlery | 1,951 | 1,844 | 2,231 | Opium | 6,233 | 6,209 | 8,509 |
| Provisions | 1,875 | 1,933 | 2,020 | Tea | 6,929 | 7,805 | 8,278 |
| Woollen goods | 1,941 | 1,387 | 2,013 | Cotton yarn | 6,454 | 6,473 | 5,749 |
| Apparel | 1,612 | 1,588 | 2,065 | Wool, raw | 1,389 | 1,905 | 1,891 |
| Silk manufactures | 1,521 | 1,511 | 1,843 | Cotton manufactures | 1,238 | 1,471 | 1,592 |
| Liquors | 1,323 | 1,277 | 1,265 | Lac | 1,863 | 1,848 | 1,429 |
| Spices | 916 | 858 | 1,028 | | | | |
| Glass and glassware | 780 | 857 | 1,045 | | | | |

*Imports of Merchandise.*—The very large increase under cotton and woollen manufactures is gratifying, seeing that it coincided with a period of high prices, and thus indicates increased purchasing power on the part of the people. The same is true of sugar, though the continued increase of sugar imports has been at the expense of home production. Java, which obtained a footing in the Indian markets when the imposition of countervailing duties restricted supplies of beet sugar, provided in 1910–11 about 70 per cent. of the imports of refined sugar. Among metals, copper—the usual material of Indian domestic vessels—shows a marked increase; iron and steel are recovering. The decrease under machinery is due to the depression in the textile industries. Among articles the imports of which point to the growing prosperity of the people may be mentioned silk goods, sugar, copper, hardware and cutlery, and glass and glassware. As regards railway stores, the Government imports of railway material should be added to the figures given above, thus bringing the total value of railway material imported to £4,124,000, a large decrease as compared with 1909–10.

*Exports of Indian Merchandise.*—The table brings out clearly the immense preponderance amongst Indian exports of raw agricultural produce, and the figures fluctuate widely according to the character of the season. The favourable season of 1909–10 caused a large increase in the exports during 1910–11 of rice, seeds, and wheat. The export of raw cotton was rather less in quantity than in 1909–10, but greater in value, as the general shortage of the world's crop sent up prices. This, however, caused a decrease in the export of yarn, while the abundant rice harvest of 1909–10 in Burma and a smaller demand in India enabled large exports to be made. The exports of oilseeds were even heavier than in 1909–10. The exports of raw jute were smaller in quantity, but rather larger value. The tea trade was again active, and there is a steady increase in the export to foreign countries, especially to Russia, and high prices were realised.

Further details with regard to the trade in some of the principal agricultural products are given in Chapter V.

*Re-exports.*—The value of foreign merchandise re-exported from India is relatively small, and the trade is not progressive. Of the total in 1910–11, £2,840,700, cotton goods shipped to the Persian Gulf, Arabia, East Africa, &c. formed about 38 per cent.

*Trade by Countries.*—In the following table imports are classified according to the countries whence they were last shipped direct to India, and exports according to the countries where they were first discharged. The system of classifying them according to their countries of true origin and final destination respectively is being introduced, but the figures for 1910–11 according to this system are not yet available. The figures as they stand show that the share of the United Kingdom in the total trade in private merchandise in 1910–11 was 38·7 per cent.; while that of

Germany was 7; of China, 6·4; of France, 5·2; of the United States, 5; of Belgium, 4·9; of Japan, 4·8. Taking imports and exports separately, about 61 per cent. of the import trade (exclusive of Government stores) and 25 per cent. of the export trade was conducted with the United Kingdom. In consequence, however, of the re-exports of Indian produce, the proportion retained in England is considerably lower. The proportion of the trade assignable to other parts of the British Empire cannot be stated accurately, since the large transactions with Ceylon, the Straits Settlements, and Hong Kong, which are chiefly distributing centres, are really for the most part trade with foreign countries. As regards the self-governing colonies, the largest trade was done with Australia (£2,910,000).

The value of India's trade in private merchandise with the chief countries, for the last three years, has been as follows (in thousands of pounds):—

| Countries. | Imports from | | | Exports to | | |
|---|---|---|---|---|---|---|
| | 1908–9. | 1909–10. | 1910–11. | 1908–9. | 1909–10. | 1910–11. |
| | 000£ | 000£ | 000£ | 000£ | 000£ | 000£ |
| United Kingdom | 50,613 | 48,799 | 52,637 | 24,547 | 32,948 | 34,947 |
| Germany | 3,286 | 2,776 | 3,436 | 10,237 | 11,959 | 13,123 |
| China (including Hong Kong) | 1,549 | 1,504 | 1,624 | 12,087 | 12,422 | 12,890 |
| United States | 2,175 | 2,450 | 2,317 | 8,824 | 9,547 | 8,955 |
| Belgium | 3,448 | 3,043 | 3,849 | 4,146 | 6,798 | 7,400 |
| France | 1,207 | 1,159 | 1,388 | 6,431 | 8,018 | 10,576 |
| Japan | 1,411 | 1,644 | 2,239 | 4,792 | 8,411 | 8,996 |
| Straits Settlements | 2,334 | 1,973 | 2,019 | 3,590 | 4,103 | 5,238 |
| Austria-Hungary | 2,578 | 1,817 | 2,110 | 3,244 | 4,344 | 4,964 |
| Ceylon | 473 | 451 | 481 | 3,983 | 4,716 | 5,469 |
| Italy | 757 | 752 | 1,012 | 3,390 | 4,044 | 5,330 |
| Mauritius | 1,715 | 1,678 | 2,016 | 818 | 759 | 907 |
| Turkey | 464 | 377 | 404 | 1,354 | 1,544 | 1,862 |
| Java | 4,131 | 5,292 | 6,005 | 388 | 955 | 2,347 |

Returns have been prepared showing imports according to countries of consignment and exports according to countries of final destination in 1909–10. It appears from these returns that the distribution of trade as given in the above table for that year is substantially accurate, except in the case of Germany and Belgium, imports from which, according to the returns of final destination, were £4,307,357 and £1,313,072 respectively, as against £2,776,000 and £3,043,000 according to the returns above. This shows that much of the trade hitherto shown as trade with Belgium has really been trade with Germany.

The trade with China consists mainly in the exportation thereto of opium, cotton yarn, raw cotton, tea, and jute goods, while silk and silk goods are imported. Germany sends chiefly woollen goods, cotton goods, apparel, oils, liquors, glassware, paper, steel, iron, copper and other metals, hardware and cutlery, machinery, dyes, toys, salt, &c. in exchange for raw cotton and jute, raw hides and skins, rice, cocoanut-kernels, oilseeds, &c. She buys far more than she sells to India. Belgium takes raw cotton, oilseeds, manures, manganese ore, jute and jute goods, rice, &c. in exchange for iron, steel, copper, dyes, glass, hardware and cutlery, cotton goods, &c. France buys large quantities of raw jute and cotton, wheat, coffee, raw silk, hides and skins, and oilseeds, and sells apparel, silk goods, and spirits. The United States buys large quantities of seeds, manganese ore, saltpetre, jute, raw and manufactured, hides and skins, and lac, and sells mineral oil, hardware, machinery, cotton goods, and iron and steel.

*Trade of Chief Ports.*—The table in the margin shows the proportionate share of the six chief ports in the private trade with foreign countries in merchandise only.

| Port. | 1909–10. | 1910–11. |
|---|---|---|
| | Per Cent. | Per Cent. |
| Calcutta | 38·2 | 37·3 |
| Bombay | 31·2 | 32·5 |
| Karachi | 10·5 | 9·6 |
| Rangoon | 7·4 | 8·1 |
| Madras | 4·5 | 4·5 |
| Chittagong | 1·6 | 1·5 |

The value of the exports from Calcutta was greater through increases under opium, oilseeds, grain and jute. Lac and raw cotton declined. Imports increased under almost all the important heads, especially sugar and cotton goods. Railway materials declined. The increase in exports from Bombay was chiefly due to the larger shipments of raw cotton, and, in imports, to cotton goods, metals, and sugar. The trade of Karachi expanded only slightly, cotton exports having decreased largely, owing to cotton for export going to Bombay for transhipment.

*Treasure.*—The net import of gold fell from £16,620,000 in 1909–10 to £15,984,000. The net import of silver fell from £6,296,000 to £5,779,000.

*Balance of Trade.*—The balance of trade rose from £22,797,000 in 1909–10 to £29,212,000.

## Land Frontier Trade.

The statistics of land frontier trade shown in the margin include a great deal of trade that is not strictly foreign. Owing to difficulties of registration accurate returns are impossible, but there is a large and increasing trade with Afghanistan, Nepal, Western China, and Siam. The principal exports from India are cotton yarn and manufactures (chiefly foreign), metals, provisions, and spices; and the chief imports into India, rice and other grains, provisions, fruits, living animals, wool, hides and skins, oilseeds, and timber.

| Year. | Imports. | Exports. | Total. |
|---|---|---|---|
| | 000£ | 000£ | 000£ |
| 1908–9 | 5,526 | 4,640 | 10,166 |
| 1909–10 | 5,638 | 4,545 | 10,183 |
| 1910–11 | 6,127 | 4,952 | 11,079 |

## Coasting Trade.

The trade in merchandise carried by coasting vessels amounted to £39,627,000 in 1910–11, or about 2 per cent. more than in 1909–10. This amount is arrived at by adding to the value of the imports into British ports from other British ports the sum of the imports and exports in the trade between British and non-British ports in India. There was a decrease in rice, but mineral oil shipments from Burma to India were larger. Bombay sent smaller quantities of cotton piece goods to Indian ports.

## Shipping.

During 1910–11 the number of steamers and sailing vessels with cargoes and in ballast which entered from and cleared to all countries was 8,435, with a tonnage of 14,984,528, an increase of 2·7 per cent. as compared with 1909–10. Of the total, 98·5 per cent. was steam tonnage. Tonnage under the British flag represented about 80·5 per cent. of the whole. The number of German and Austro-Hungarian vessels has decreased.

The number of vessels under the principal flags is given below:—

| Nationality. | 1906–7. | 1907–8. | 1908–9. | 1909–10. | 1910–11. |
|---|---|---|---|---|---|
| British | 4,918 | 4,785 | 4,238 | 4,722 | 4,745 |
| German | 371 | 375 | 437 | 455 | 416 |
| Austro-Hungarian | 159 | 157 | 156 | 220 | 208 |
| Norwegian | 195 | 188 | 106 | 95 | 103 |
| Italian | 77 | 79 | 76 | 81 | 84 |
| Japanese | 83 | 123 | 79 | 63 | 77 |
| French | 67 | 61 | 55 | 56 | 56 |

## Freights.

The following statement gives minimum quotations for typical rates of freight from the chief Indian ports to London for each of the last five years, taking in each case the month when the largest quantity of the commodity is ordinarily shipped:—

| —— | 1907. | 1908. | 1909. | 1910. | 1911. |
|---|---|---|---|---|---|
| | £ s. d. | £ s. d. | £ s. d. | £ s. d. | £ s. d. |
| Calcutta—Rice | 1 0 0 | 0 12 6 | 0 15 0 | 1 0 0 | 0 18 9 |
| Wheat | 0 17 6 | 0 15 0 | 1 0 0 | 1 1 3 | 1 0 0 |
| Linseed | 1 1 3 | 0 17 6 | 1 0 0 | 1 0 0 | 1 2 6 |
| Tea | 1 16 3 | 1 12 6 | 1 12 6 | 1 12 6 | 1 12 6 |
| Jute | 1 6 3 | 0 17 6 | 1 2 6 | 1 6 3 | 1 12 6 |
| Bombay—Cotton (Liverpool) | 0 16 0 | 0 11 6 | 0 11 0 | 0 16 6 | 0 15 0 |
| Wheat | 0 15 0 | 0 10 0 | 0 12 0 | 0 14 6 | 0 14 0 |
| Seeds | 0 12 0 | 0 12 0 | 0 15 0 | 0 15 0 | 0 16 6 |
| Karachi—Wheat and seeds (Liverpool). | 0 14 6 | 0 9 0 | 0 14 0 | 0 14 6 | 0 17 0 |

## Working of the Merchandise Marks Act.

*(For further details, see Statistical Abstract for British India, Table* 185.)

The Indian Merchandise Marks Act (IV. of 1889) was passed to prevent the fraudulent sale of goods bearing false trade marks or false trade descriptions (as of origin, quality, weight, or quantity). The Act also requires that all piece-goods must be stamped with their length in yards. Out of 2,143 detentions under the Act in 1910–11, 521 were on account of counterfeit trade marks or false trade descriptions, 1,318 for non-description or false description of origin, and 304 for unstamped or insufficiently stamped piece-goods. Detention is rarely followed by confiscation. Goods were released with a fine in 1,100, and without a fine in 1,037, cases. A new edition of the "Merchandise Marks Manual" was published in 1910.

## Joint Stock Companies.

*(For further details, see Statistical Abstract for British India, Tables* 216, 217.)

At the commencement of 1910–11 there were 2,162 joint stock companies at work in British India with a paid-up capital of about £40,789,000. At the end of the year there were in operation 2,251 companies, with a paid-up capital of £42,488,000. There has been an increase of 75 per cent. in the total paid-up capital in the last 10 years. The companies are most numerous and important in the provinces of Bengal and Bombay, which possess 40 and 36 per cent. respectively of all the paid-up capital, while the share of Madras, which comes next, was less than 8 per cent. of the whole. The average of paid-up capital is highest in Bengal, where it amounts to £31,600, while in Bombay it is £26,700. In Madras the average is low, as 263 money-lenders, mostly carrying on a small business, are registered under the Companies Act. The distribution of paid-up* capital among registered companies of the different classes was as follows:—

| | £ | | £ |
|---|---|---|---|
| Banking loan and insurance | 5,418,440 | Mills and presses - - | 18,307,836 |
| Trading and shipping - | 8,295,288 | Tea and planting - - | 2,533,217 |
| Mining and quarrying - | 5,951,424 | Other industries - - | 1,981,907 |

As will be seen, the largest aggregate paid-up capital, £18,307,836, constituting nearly half the total, was invested in cotton, jute, and other mills and presses; and about 50 per cent. of the capital of such undertakings was invested (mostly in cotton mills and presses) in Bombay Presidency. Nearly a third of the capital of trading companies is invested in railways and tramways. The capital invested in coal companies (more than 97 per cent. of which is in Bengal) has quadrupled in the last 10 years.

At the end of 1909–10 there were, so far as is known, 311 companies which carry on work with sterling capital exclusively, or almost exclusively, in India, but which are registered elsewhere, and their paid-up capital amounted to £69,910,173, besides £42,930,622 debentures. The railways and tramways represented £36,301,000 paid-up capital and £37,834,000 debentures. Of the rest the sterling capital (including debentures) invested in the tea industry was £15,605,000, in jute mills £2,900,000, in cotton mills £400,000, and in rice mills £1,730,000. Thus, while the railway and tea concerns are mainly financed from abroad, the great bulk of the mill and press companies are registered in India.

* Share capital only. The total value of the debentures issued at the commencement of 1910–11 amounted to £4,890,000.

# CHAPTER XI.

## PUBLIC WORKS.

GENERAL. | IRRIGATION.
RAILWAYS. | BUILDINGS AND ROADS (CIVIL).

### GENERAL.

The operations included under the head of "Public Works" are of three kinds, viz., Railways, Irrigation, and Buildings and Roads. The Railway Department is an Imperial service under the control of the Government of India, or of the Railway Board, in so far as the powers of the Government of India have been delegated to it. The establishment employed on irrigation and on buildings and roads is subdivided according to Provinces, and controlled by the local administrations, in subordination to the Supreme Government. Under the head of "Buildings and Roads" are included many miscellaneous works, such as improvements in towns, paving, water supply and drainage, harbours, lighthouses, &c.

The annual expenditure on public works is met partly from money raised by loan and partly from the ordinary revenues of the year. The class of works on which borrowed money is expended comprises the railways and large irrigation works, which are expected to yield sufficient net revenue to cover the interest on the capital expended on them. For the railways and more important irrigation systems, distinct capital and revenue accounts are kept, but for the smaller works of irrigation and most of the works included in the class of buildings and roads, such accounts are not kept, though a distinction is made in the accounts between expenditure on new works and expenditure on repairs to existing works.

The following statement of the total receipts and expenditure under the head of "Public Works" for 1910–11 is compiled from the Finance and Revenue Accounts:—

| | Receipts. | Expenditure. | | |
|---|---|---|---|---|
| | | | Charged to Revenue. | Not charged to Revenue. |
| | £ | | £ | £ |
| Railways | 30,669,102 | Construction | 795 | 8,915,205 |
| | | „ from Famine Relief Grant | 36 895 | — |
| | | On Revenue Account | 28,651,606 | — |
| Irrigation | 3,694,521 | Construction | — | 1,203,888 |
| | | „ from Famine Relief Grant | 359,674 | — |
| | | On Revenue Account | 3,110,134 | — |
| Buildings and roads | 293,883 | Civil Works | 4,536,667 | — |
| TOTAL | 34,657,506 | | 36,695,771 | 10,119,093 |

The expenditure charged against revenue includes the following items of "Interest on Debt":—Railways, £5,842,334; Irrigation, £1,115,410.

Of the permanent public debt on the 31st of March 1911, £195,836,888 is classed as incurred for railways and £33,800,175 for irrigation.

The amount paid under the head of "Annuities in purchase of railways," which is included in the Railway Revenue Account, is £3,357,634.

The following statement shows the strength of the superior engineer and upper subordinate establishments as they stood on the 30th June in 1911 and 1910:—

| | | Irrigation and Buildings and Roads. | | | Railways. | Total. |
|---|---|---|---|---|---|---|
| | | India. | Madras. | Bombay. | | |
| Civil Engineers (including Military Officers) | 1911 | 532 | 92 | 104 | 180 | 908 |
| | 1910 | 515 | 92 | 102 | 173 | 882 |
| Upper Subordinates | 1911 | 597 | 182 | 250 | 69 | 1,098 |
| | 1910 | 577 | 182 | 230 | 68 | 1,057 |

### RAILWAYS.

(*For further details see Statistical Abstract for British India, Tables* 44 *to* 47, 68–9, 71, 74 *to* 78, 126 *to* 134.)

*Financial Results to the State.*—In the financial year 1910–11 there was a net gain of £2,017,496. The table below is taken from the Finance and Revenue Accounts of the Government of India for 1910–11.

| — | Imperial. | Provincial. | England. (Sterling converted at £1=Rs. 15.) | Total. |
|---|---|---|---|---|
| REVENUE. | £ | £ | £ | £ |
| Railways— | | | | |
| State railways—(Gross traffic receipts) | 30,623,170 | 6,356 | 230 | 30,629,756 |
| Subsidised companies—(Repayment of advances of interest). | 13,595 | — | 25,751 | 39,346 |
| TOTAL £ | 30,636,765 | 6,356 | 25,981 | 30,669,102 |
| EXPENDITURE. | | | | |
| Railway Revenue Account— | | | | |
| State Railways— | | | | |
| Working expenses | 16,318,240 | 5,389 | — | 16,323,629 |
| Share of surplus profits, &c. | 464,012 | — | — | 464,012 |
| Interest on debt | 2,664,637 | — | 3,177,697 | 5,842,334 |
| Annuities in the purchase of railways | — | — | 3,357,634 | 3,357,634 |
| Sinking funds | — | — | 171,264 | 171,264 |
| Interest chargeable against companies on advances. | 206,138 | — | 219,213 | 425,351 |
| Interest on capital deposited by companies | 192,988 | — | 1,814,351 | 2,007,339 |
| Guaranteed companies— | | | | |
| Surplus profits, land and supervision | — 710 | — | — | — 710 |
| Subsidised companies— | | | | |
| Land, &c. | 25,300 | 2,974 | — | 28,274 |
| Miscellaneous railway expenditure | 31,933 | 546 | — | 32,479 |
| TOTAL £ | 19,902,538 | 8,909 | 8,740,159 | 28,651,606 |

In the figures of expenditure are included all charges falling on the Government for the management and working expenses of railways, for interest on capital outlay, as well as for the gradual redemption (by charge to the revenue account) of the commuted capital of the East Indian, Eastern Bengal, Sind Punjab and Delhi, Great Indian Peninsula and Madras railways, through the agency of sinking funds and annuities, and of that portion of the Oudh and Rohilkund railway debt incurred in excess of the money raised through the agency of the "Discount" Sinking Fund. The figures also include charges for control, for land required by the companies, and for miscellaneous items, such as headquarters establishment and surveys.

*Statistical Results of Working.*—The statistical results of working the various classes of railways during 1911 are given in the following table. The aggregate net earnings of all Indian railways, including steamboat service and suspense items, but excluding indirect charges, produced a return of 5·71 per cent. on the total capital outlay on open lines, against 5·46 per cent. in the previous year:—

| Class. | Length of Line open on the 31st December 1911. | Total Capital Outlay on Open Lines to the 31st December 1911, including Steamboat and Suspense. | Total Number of Passengers carried. | Total Weight of Goods carried. | Gross Earnings, including Steamboat Service. | Working Expenses, including Steamboat Service. | Net Earnings, including Steamboat Service. | Percentage of Net Earnings on Capital Outlay on Open Lines. |
|---|---|---|---|---|---|---|---|---|
| *All Gauges.* | Miles. | £ | No. | Tons. | £ | £ | £ | |
| State lines worked by the State | 6,867·30 | 79,558,467 | 101,113,600 | 18,118,000 | 8,868,266 | 5,360,400 | 3,325,866 | — |
| State lines worked by companies* | 18,089·53 | 187,463,266 | 229,808,200 | 46,253,000 | 23,782,400 | 12,034,667 | 11,747,733 | — |
| Companies' lines guaranteed under modern contracts. | 32·04 | 200,400 | 400,900 | 77,000 | 28,200 | 14,133 | 14,067 | — |
| District Boards' lines | 155·16 | 469,000 | 3,444,000 | 250,000 | 75,934 | 41,000 | 34,934 | — |
| Assisted companies' lines | 3,690·11 | 16,129,066 | 47,797,800 | 6,508,000 | 2,012,467 | 940,267 | 1,072,200 | — |
| Unassisted companies' lines | 60·40 | 118,133 | 694,400 | 66,000 | 10,600 | 8,266 | 2,334 | — |
| Lines owned by Native States and worked by companies. | 2,000·31 | 10,105,134 | 13,933,800 | 2,284,000 | 965,667 | 472,533 | 493,134 | — |
| Lines owned by Native States and worked by State railway agency. | 257·81 | 1,034,400 | 4,450,700 | 806,000 | 170,267 | 88,800 | 81,467 | — |
| Lines owned and worked by Native States. | 1,662·10 | 3,968,467 | 7,705,300 | 1,247,000 | 614,133 | 257,200 | 356,933 | — |
| Lines in foreign territory | 73·60 | 1,264,267 | 1,143,000 | 480,000 | 68,866 | 39,267 | 29,599 | — |
| TOTAL OF ALL RAILWAYS, 1911 | 32,888·36 | 300,310,600 | 410,491,700 | 76,089,000 | 36,414,800 | 19,256,533 | 17,158,267 | 5·71 |
| Ditto 1910† | 32,099·30 | 292,698,200 | 371,576,000 | 65,305,000 | 34,094,800 | 18,104,800 | 15,990,000 | 5·46 |

* The Birur-Shimoga, Hindupur, and Mysore-Nanjangud railways are included with the Mysore State railway under this classification, as separate figures for these lines are not available.

† As corrected from later information.

It will be observed that, with an increase of 789·06 miles, or 2·46 per cent. in the open mileage, as compared with 1910, the gross earnings increased by £2,320,000, or 6·80 per cent., and the working expenses by £1,151,733, or 6·36 per cent., resulting in an improvement of £1,168,267 in the net earnings.

*Mileage opened and under construction.*—The total railway mileage opened, under construction, and sanctioned for construction during the year was as follows:—

| Gauge. | Miles opened. | Miles sanctioned for construction. | Total Mileage under construction or sanctioned at the close of the Year. |
|---|---|---|---|
| 5′ 6″ gauge | 312·54 | 438·00 | 1,212·43 |
| 3′ 3⅜″ „ | 288·15 | 163·43 | 713·76 |
| 2′ 6″ „ | 197·34 | 262·53 | 755·18 |
| 2′ 0″ „ | 3·30 | — | 3·50 |
| Total | 801·33 | 663·96 | 2,684·87 |
| *Deduct* correction of mileage | 12·27 | | |
| Net total addition to open mileage | 789·06 | | |

*Important Works completed and in progress.*—Full particulars in regard to the works completed and in progress during 1911, and projects for new lines under consideration during the year, will be given in the Administration Report on Indian Railways for 1911, which will be published as a Parliamentary Paper. A few details of the more important works of the year are, however, given below.

Important works in progress during the year included the Allahabad-Rae Bareli-Cawnpore extension of the Oudh and Rohilkund railway, 153·31 miles; the Southern Shan States railway, 105 miles; the Barharwa-Azimganj-Katwa extension of the East Indian railway, 102·7 miles; the Kalabagh-Bannu railway, 94·21 miles; the Hooghly-Katwa extension, East Indian railway, 65·2 miles; the Thawe-Captainganj extension of the Bengal and North-Western Railway, 59·75 miles; the Jakhal-Hissar railway, 53·63 miles. Doubling of the line between Shegaon and Nagpur, 180 miles, was continued, and of the line from Amritsar to Ambala cantonment, 153·74 miles, completed. A new bridge over the Ganges at Cawnpore for the use of 5′ 6″ gauge traffic only was completed, and the reconstruction of the Tapti bridge on the Great Indian Peninsula railway practically so. Work was continued on the Sara bridge over the Lower Ganges, the Ganges bridge at Allahabad, the Mahi bridge at Vasad on the Bombay Baroda and Central India railway, the Jumna bridge on the North-Western railway, and bridges over the Gogra and Gunduck rivers on the Bengal and North-Western Railway. The Jumna, Gogra and Gunduck bridges will probably be opened for traffic this year. The works in connection with the establishment of communication between the railway systems of India and Ceylon by means of a ferry service, which were approved last year, made good progress.

*Projects for new Lines.*—In connection with the projects for new lines the more important subjects which have been considered by Government include a scheme suggested by the South Indian railway with reference to their Indo-Ceylon project for eventually displacing the ferry service by the construction of a bridge on Adam's Reef, on which matter careful inquiries are being made; South Indian railway extensions in the Karnatic, aggregating 673 miles, including several of the lines in which District Boards have interested themselves; and proposals for the extension of the broad-gauge section of the Nizam's Guaranteed State railways by the construction of connecting links between Wadi and Gadag (on the Madras and Southern Mahratta railway). and between Warangal and Balharshah (on the Great Indian Peninsula railway).

*Fares and Rates.*—A revised general classification of goods, with a revised schedule of maximum and minimum class rates, was introduced in September 1911, subject to the condition that no railway should charge for any commodity at a higher rate than that permissible on that railway on June 30th, 1910. Owing to the prospects of a fodder famine specially reduced rates for the carriage of fodder were quoted by the Railway Administrations.

*Rolling-Stock and Safety Appliances.*—For the year 1911-12 a provision of Rs. 428 lakhs was made for additional rolling-stock for open lines. This provision is Rs. 38 lakhs less than that for 1910-11.

The additions made during the year 1911 to the rolling-stock of the Indian railways consisted of 229 engines, 1,040 coaching vehicles, and 4,005 goods vehicles, the number under supply at the end of the year being 233 engines, 1,184 coaching vehicles, and 8,049 goods vehicles. Good progress continues to be made in the provision of automatic brakes, communication gear between passengers and the train staff, bars and fastenings to windows and doors, electric and gas lighting of carriages, and the removal of continuous foot-boards and horizontal hand-rails. As the result of the deliberations of a committee of medical and railway officers, facilities for giving medical aid on the occurrence of serious railway accidents have been considerably improved on all State railways.

*Accidents.*—Accidents occurred on the Bengal-Nagpur railway system, resulting in the death of two persons; on the Bengal and North-Western railway, when eight persons were killed and 12 injured; and on the East Indian railway, when one person was killed, three seriously injured, and 29 slightly injured.

*Damages by Floods and Rainfall.*—During the months of July and August heavy rains and floods caused breaches on the Bengal-Nagpur railway between Howrah and and Madras and rendered necessary transhipment of passengers during 10 days; on the Gauhati section of the Eastern Bengal State railway, where traffic was interrupted for nine days; and on the Bengal-Dooars railway, where the damage done was so severe that it took two months to restore through communication. A serious breach also occurred near Diphu station, on the Assam-Bengal railway, due to the percolation of water from the Dharam Nala. Towards the end of September a severe cyclone passed across the East Coast section of the Bengal-Nagpur railway, and caused much damage both to buildings and track. Transhipment of passengers was necessary for seven days.

*Amendment of the Indian Tramways Act.*—The Bill further to amend the Act to make it applicable to mono-railways and to electric tramways was passed into law in March 1911.

*Future Working and Management of the Railways in Kathiawar.*—The arrangement for the separate working of these lines, referred to in the last report, was not brought into operation until 1st April 1911. From that date the Kathiawar railway system, formerly under joint management, has been divided as follows:—(i) Bhavnagar, including the Dhrangadra; (ii) Gondal-Porbandar, including the Jetalsar-Rajkot; (iii) Jamnagar; and (iv) Junagad.

*Taxation of Railway Companies by Municipalities.*—On this subject a notification has been issued, in substitution for previous notifications, specifying the taxes payable by any particular railway administration to any particular local body and by Railway Administrations to local bodies generally.

*Deoghur Railway.*—The Deoghur Railway Company's metre gauge railway, 4·12 miles, was purchased by the Government and added to the East Indian Railway Company's undertaking as from 1st July 1911. The latter company converted the line to broad gauge and commenced to work it on 9th November 1911.

*Use of Local Manufactures for Railway Purposes.*—Purchases of wagon frames and bodies built by local firms continued to be made during 1911 for the three State railways. It was also recently decided to extend the scope of the former orders regarding the purchase of articles of local manufacture in India. A Government test-house is being built and is nearly completed at Alipur, near Calcutta, under the Superintendent of Local Manufactures, with the object of carrying on mechanical tests of metals and of cement purchased in the local market for State railways and other Government Departments. It is also intended to have chemical tests performed in the test-house. A Government laboratory is also being erected at Kalimati, on the Bengal-Nagpur railway, in order to test on the spot the steel rails manufactured at Messrs. Tata and Sons' iron and steel works for State railways.

*Coronation Durbar.*—To deal with the exceptional traffic by this event, the North-Western State railway constructed a total length of 19 miles of railway, of which 10 were double line, together with the requisite buildings and yards. The arrangements proved adequate, and all traffic was handled with promptitude.

## IRRIGATION.

(*For further details see Statistical Abstract for British India, Tables,* 44–7, 68–9, 71, 74 *to* 76, 121, *and* 135.)

The class of works dealt with by the Public Works Department under the head of Irrigation may be roughly divided into canals and tanks, though these two kinds of works are frequently used in combination. The works under the former head take off, in most cases, from the larger rivers, which, drawing their water from lofty mountain ranges, can, even in times of drought, be depended upon for an unfailing supply. They have been utilised on the largest scale and with the most successful results in the United Provinces, the Punjab and Sind, and the deltas of the large rivers in the Madras Presidency. In tank irrigation, on the other hand, the supply of water is more or less dependent on the local rainfall, either directly or through the medium of the smaller rivers, which dry up in hot seasons. This is the common system of irrigation in Southern India, where irrigation is largely dependent on storage works. In the Madras Presidency alone there are some 60,000 tanks. These works are for the most part of native origin; but much has been done under the British Government in improving old tanks, and in constructing new works in Madras, the Bombay Deccan, Ajmere-Merwara, and the Central Provinces. In parts of Baluchistan, where the rainfall is scanty and very capricious, a method is practised of drawing the water from underground springs by means of tunnels driven into the hill sides. There remains the method of irrigation more extensively used in India than any other, viz., that by wells, which, however, does not come directly within the scope of operations of the Public Works Department.

Financially considered, the irrigation works are classed as "major" or "minor." The former class includes all the works which have been undertaken from loan funds, in the expectation that they would be sufficiently productive to cover the interest charges on the sums spent on their construction. It also includes the works classed as famine protective, which are constructed not from borrowed funds, but out of the annual grant from revenue for famine relief and insurance. The amount available for the construction of protective works from the grant for famine relief and insurance is now supplemented by a further grant from revenue. This supplementary grant was first made in 1911–12. The cost of constructing the "minor" works, as well as the sums annually required for their working and maintenance, are met from ordinary revenues, and for the greater part of this class of works distinct capital and revenue accounts are not kept.

Speaking generally, the "major" class includes the works of the greatest engineering importance, which have been constructed, or, as in the cases of a few old Native works, almost entirely reconstructed by British officers

The following statement gives a general view of results obtained from working the canals for which full accounts are kept for 1908–9, 1909–10, and 1910–11 :—

| — | Capital Outlay (Direct and Indirect) to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works | 35,311,300 | 3,509,633 | 1,218,613 | 2,291,020 | 6·49 | 14,162,860 |
| Minor Works | 4,145,234 | 336,418 | 140,623 | 195,795 | 4·72 | 1,909,576 |
| Total for 1910–11 | 39,456,534 | 3,846,051 | 1,359,236 | 2,486,815 | 6·33 | 16,072,436 |
| Total for 1909–10 | 37,778,620 | 3,783,012 | 1,318,622 | 2,464,390 | 6·52 | 16,114,788 |
| Total for 1908–9 | 36,171,572 | 3,692,483 | 1,257,618 | 2,434,865 | 6·73 | 16,435,527 |

There are great differences in the financial success of the irrigation works in the various provinces. These are due to the various physical conditions of the country in regard to surface, soil, climate, and the absence or presence of large rivers with a permanent supply of water, as well as to the differences in the character and habits of the people in different districts. There are also considerable differences in the manner in which the irrigation revenue is assessed and collected, which have an

important bearing on the financial success of the works. In Madras the bulk of the irrigation revenue is collected with, and on most of the works is consolidated with, the land revenue. In Bengal and Bombay the irrigation receipts consist largely of "occupiers'" rates, and are not supplemented by "owners'" rates, as in the United Provinces, nor, with a few exceptions, by a share of the land revenue. In Sind the revenue of the canals consists almost entirely of the share of the land revenue allotted to irrigation. Cultivation in Sind is dependent on the artificial supply of water, and the consolidated revenue from the irrigated lands is divided in the proportion of 90 per cent. to irrigation and 10 per cent. to land. In the United Provinces and in the Punjab, the direct water rates are assessed partly on the occupier and partly on the owner of the land, the bulk of the rates falling on the former, and the irrigation receipts are further increased by a not unimportant contribution from the land revenue. The contribution from the land revenue is the amount considered due to irrigation when an enhancement of land revenue is levied at the periodical revision of the land settlement. Like the owners' rate, which is directly levied, it falls upon the owner of the land.

The immense systems of artificial water channels with which some parts of India are covered would appear at first sight to offer unrivalled opportunities for water carriage. But though efforts have been made to organise navigation services on some of the larger irrigation canals, it cannot be said that, on the whole, they have met with success. In many cases the traffic receipts have failed to cover the working expenses. It is, indeed, obvious that the canals, being designed primarily for irrigation purposes, must often be unsuitable from their alignment and level for navigation.

The following more detailed account of the irrigation operations of the year is given under the heads of the different provinces in which the works are situated. Each account opens with a statement showing the general results for 1910–11 of working all the irrigation and navigation systems *for which full accounts are kept* as compared with the results of the previous year.

*Bengal :—*

| —— | Capital Outlay to End of Year. | Gross Receipts. | Expenditure. | Net Receipts. | Percentage on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works - - - | 4,714,382 | 170,306 | 104,009 | 66,297 | 1·46 | 898,934 |
| Minor Works - - - | 1,085,967 | 31,435 | 33,770 | *– 2,335* | — | None* |
| Total for 1910–11 - | 5,800,349 | 201,741 | 137,779 | 63,962 | 1·10 | 898,934 |
| Total for 1909–10 - | 5,718,313 | 209,700 | 127,020 | 82,680 | 1·45 | 951,524 |

* The minor works open in Bengal are navigation works.

During the year under review there were in Bengal six major irrigation works, two of which were classed as protective. Of the productive works, three combine irrigation with navigation, and the fourth (Hijili tidal canal) is purely a navigation work. The two protective works, the Dhaka and the Tribeni canals, were sanctioned in 1900–1, and are still in course of construction, the capital expenditure to the end of the year amounting to £37,323 and £367,456 respectively.

Besides the minor works for which full accounts are kept, there are four works of this class for which capital accounts are not kept, viz., the Nadia river system, the Gaighatta and Buxi Khals, and the Eden and Madhuban Canals. The first-named, comprising 516 miles of channel, is used for navigation purposes only.

*Bombay, including Sind :—*

| —— | Capital Outlay to beginning of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major works - - - | 3,835,995 | 263,817 | 106,159 | 157,658 | 4·11 | 1,314,723 |
| Minor works - - - | 896,221 | 132,994 | 46,778 | 86,216 | 9·62 | 886,327 |
| Total for 1910–11 - | 4,732,216 | 396,811 | 152,937 | 243,874 | 5·15 | 2,201,050 |
| Total for 1909–10 - | 4,548,780 | 372,756 | 123,299 | 249,457 | 5·48 | 2,129,665 |

In the Bombay Presidency, excluding Sind, the water system does not as a rule admit of the construction of large irrigation works. The rivers or streams are mostly small and more or less dependent on the rainfall, and a constant supply cannot be obtained from them without the aid of large reservoirs or tanks. In Sind the success of the irrigation operations is dependent on the regular rise of the River Indus.

In Bombay the season was on the whole a good one. In the northern division the important feature of the year's operations was the commencement of the works included in the Khari Cut extension project. The canal once more irrigated a record area; in the central division the number of acres irrigated was less, but the gross assessed revenue considerably greater than the average for the last 10 years. In the southern division there was a decrease of 3,287 acres in the total area irrigated by first-class works, resulting in a substantial decrease of revenue. The area irrigated under second-class tanks also showed a falling off; the revenue amounted to £14,779. On the Girna river the Chankapur storage works were completed and satisfactory progress was made with the Godaveri canal project; this work is estimated to cost £636,700, and to command an area of 239,698 acres.

In Sind the existence of cultivation depends upon irrigation, and there is constant demand for water from the canals. This fact, and the comparatively inexpensive nature of inundation canals, account for the favourable results generally obtained from the working of irrigation canals in the province. In the year 1910–11 the inundation was on the whole good and more favourable than that of the preceding year.

*Burma :—*

| | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works - - - | 1,132,575 | 63,303 | 19,307 | 43,996 | 3·88 | 175,573 |
| Minor Works - - - | 262,440 | 88,777 | 18,759 | 70,018 | 26·68 | 459,103 |
| Total for 1910–11 - | 1,395,015 | 152,080 | 38,066 | 114,014 | 8·17 | 634,676 |
| Total for 1909–10 - | 1,310,824 | 149,053 | 32,313 | 116,740 | 8·91 | 658,311 |

In Lower Burma there are no large irrigation works. The expenditure recorded under the head of "Irrigation and Navigation" has reference to the river embankment and drainage works and navigation canals.

In Upper Burma various causes combined to diminish the area irrigated by the major irrigation works. Floods and cattle disease interfered with the use of the Mandalay canal system, and the absence, pending the revenue settlement, of differential rates for areas differing in advantage threw out of cultivation some of the land commanded by the Shwebo canal. The net revenue of the Mandalay canal declined by 1,400*l.*, and showed a return of 4·45 per cent. on capital outlay as against 4·87 in 1909–10. The construction of the Môn and Ye-u canals was continued, and the former system has now been opened. The minor irrigation works likewise suffered from heavy rains and floods.

*Central Provinces and Berar :—*

| | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works - - - | 513,745 | 3,843 | 2,060 | 1,783 | ·40 | 19,069 |
| Total for 1909–10 - - | 437,944 | 2,105 | 1,621 | 484 | ·11 | 24,844 |

Irrigation from works constructed by the State is at present a novelty to the people of the Central Provinces and Berar, and it is still necessary to offer its benefits on the most liberal terms in order to encourage their acceptance. The rainfall during the year 1910–11 was unusually heavy, and as a result of this the area irrigated (by all works) decreased from 37,365, the figure for 1909–10, to 25,356. The expenditure on protective works fell from £109,568 to £75,694, and on minor works from £32,659 to £30,236. The surveys for the Mahanadi canal and the Wainganga canal projects were completed, and sanction has now been given to

the commencement of work in both cases. The Mahanadi canal is estimated to cost about £662,000 and to irrigate 360,000 acres, yielding a net revenue of over 8 per cent. per annum, whereas the Waingaga canal is expected to cost about £254,000, to irrigate some 79,000 acres, and to yield a net revenue of about 5·3 per cent. each year. Preliminary work was also done on the Jamunia tank.

*Madras :—*

| | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area Irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works - - - | 5,922,176 | 708,444 | 199,261 | 509,183 | 8·60 | 3,426,883 |
| Minor Works - - - | 1,251,170 | 50,267 | 20,025 | 30,242 | 2·42 | 357,671 |
| Total for 1910–11 - | 7,173,346 | 758,711 | 219,286 | 539,425 | 7·52 | 3,784,554 |
| Total for 1909–10 - | 7,106,331 | 741,846 | 203,509 | 538,337 | 7·58 | 3,763,649 |

From an irrigation point of view the Madras Presidency is distinguished by the variety and extent of its works, ranging from the great deltaic systems of the Godaveri, Kistna, and Cauvery to the small tanks and channels maintained by the Revenue Department. The number of tanks directly or indirectly dependent on the local rainfall is very large, and, speaking generally, the success of the irrigation operations is more affected by local climatic conditions than in Northern India, where the irrigation works draw their supply from large rivers fed by the melting of the snow on distant mountain ranges.

The total outlay on irrigation works during the year 1910–11 amounted to £421,927 as against £441,733 in the previous year. The area irrigated by all classes of works, including first and second crops, was 7,173,543 acres. The total revenue realised was £1,704,843, an increase of £71,537 as compared with 1909–10. The season was favourable, and supplies for irrigation sufficient.

The investigations of the two large projects—the Kistna and Cauvery reservoir projects—were completed during the year. The estimates for the former, which provides for the irrigation of over 600,000 acres, amounting to over £5½ millions, were submitted to the Chief Engineer for Irrigation, and estimates for the Cauvery project, amounting to over £2½ millions, were submitted to the Government of India. The Cauvery scheme provides for the irrigation of some 400,000 acres, and is expected to make a return of 6·93 per cent. on capital.

*North-West Frontier Province :—*

| | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major works (1910–11) - | 783,038 | 50,860 | 22,229 | 28,631 | ·69 | 220,576 |
| Major works (1909–10) - | 636,259 | 55,160 | 18,678 | 36,482 | 5·73 | 223,653 |

At the end of 1910–11 three major works were in operation in the North-West Frontier Province. A fourth—the Upper Swat River canal—is in course of construction. The Lower Swat River Canal showed a return of 10·30 per cent. on capital outlay as against 10·93 in the previous year.

*Punjab :—*

| | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works - - - | 10,998,849 | 1,561,130 | 520,153 | 1,040,977 | 9·46 | 5,943,750 |
| Minor Works - - - | 37,282 | 7,832 | 5,767 | 2,065 | 5·54 | 72,070 |
| Total for 1910–11 - | 11,036,131 | 1,568,962 | 525,920 | 1,043,042 | 9·45 | 6,015,820 |
| Total for 1909–10 - | 10,176,594 | 1,499,966 | 532,909 | 967,057 | 9·53 | 5,827,354 |

As the above figures show, the year was a very favourable one. The Sidnai Inundation Canal showed a return of 31·72 per cent. on capital, the Lower Chenab 28·66, the Upper Sutlej 18·88, and the Upper Bari Doab and the Lower Jhelum nearly 12 per cent. each. The construction work on the Upper Jhelum, Upper Chenab, and Lower Bari Doab canals is nearing completion. The expenditure on this scheme amounted to £792,000.

*United Provinces of Agra and Oudh :—*

| | Capital Outlay to End of Year. | Gross Receipts. | Working Expenses. | Net Receipts. | Percentage of Net Receipts on Capital Outlay. | Area irrigated. |
|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | | Acres. |
| Major Works - - - | 7,410,540 | 687,927 | 245,435 | 442,492 | 5·97 | 2,163,352 |
| Minor Works - - - | 206,133 | 14,641 | 9,740 | 4,901 | 2·38 | 106,982 |
| Total for 1910–11 - | 7,616,673 | 702,568 | 255,175 | 447,393 | 5·87 | 2,270,334 |
| Total for 1909–10 - | 7,460,980 | 739,462 | 270,549 | 468,913 | 6·29 | 2,514,163 |

Good progress was made with the Pahuj and Garhinau canals and with works on the Betwa, Ken, and Dassan canals. The estimated value of the crops raised by canal water was £7,376,261, or about £3 5*s.* per acre.

## Buildings and Roads (Civil).

The Buildings and Roads branch of the Public Works Department embraces all the operations of the Department which are not classed under the special heads of Railways and Irrigation. It includes the extension and maintenance of the road system, the construction and repair of all the buildings required for the proper discharge of the functions of government in all its branches, and a large miscellaneous class of works of public improvement, including lighthouses, harbours, embankments, boat bridges, and ferries, and the water supply and sanitation of towns.

The operations of this branch of the Department are classed primarily under the head of Civil Works, the expenditure on which is chiefly met from provincial resources. The classification of this expenditure for 1910–11 under the various heads is shown in the following table :—

| | Central Provinces and Berar. | Burma. | Eastern Bengal and Assam. | Bengal. | United Provinces of Agra and Oudh. | Punjab. | North-West Frontier Province. | Madras. | Bombay. | India General. | Total. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ | £ |
| Imperial - - | 55,088 | 16,975 | 17,156 | 115,364 | 55,918 | 29,484 | 137,764 | 26,967 | 71,945 | 85,851 | 612,512 |
| Provincial* - - | 383,038 | 569,350 | 428,687 | 437,269 | 471,028 | 341,849 | — | 635,836 | 555,444 | — | 3,822,501 |
| Total - - | 438,126 | 586,325 | 445,843 | 552,633 | 526,946 | 371,333 | 137,764 | 662,803 | 627,389 | 85,851 | 4,435,013 |

* Includes expenditure by the Civil Department in addition to that by the Public Works Department.

| | |
|---|---|
| Expenditure by Civil Officers from Imperial Funds £ | 21,190 |
| Expenditure in England - - - - £ | 80,464 |
| Grand Total - - £ | 4,536,667 |

The extension of local government in India has thrown a large portion of the smaller class of public works into the hands of the local boards. Speaking generally, the boards maintain their own establishments, but in the case of any works of unusual difficulty they have recourse to the professional skill of the Public Works officers.

The following short account of Civil Works for the year under review is given under the heads of the different provinces in which the expenditure was incurred :—

*Bengal.*—The principal buildings constructed for the Imperial Government were the new Commerce and Industry Secretariat, some new offices and vaults for the Paper Currency Office in Calcutta, a new Press building and new Stamp and Stationery Office buildings.

The most important Provincial works were a new Civil Court at Cuttack, staff quarters, and a Press building for the Alipore jail, and at Calcutta a new barrack for police, the "Baker hostel" for Muhammadan students, two fresh blocks in the Medical College, and the extension and improvement of the Indian Museum.

*Bombay.*—Under Imperial works, a concrete dome was constructed over the central hall of the new General Post Office at Bombay, and the residence for His Highness the ex-King Thebaw of Burma at Ratnagiri was completed. Under Provincial works, £46,700 were expended on police buildings, £40,000 on medical buildings, £36,700 on land revenue buildings, and £30,000 on educational colleges and schools. A total sum of £121,700 was spent on communications, the principal new works in progress being the bridges over the Kadwa, near Konkagaon, and over the Krishna at Máhuli.

*Burma.*—During the year arrangements were completed for transferring to the Public Works Department all District and District Cess Fund projects requiring technical skill, and a redistribution of Public Works administrative charges is foreshadowed in consequence. The expenditure on Provincial Civil Works was slightly greater than in the previous year, but far less than it has been in some recent years. Only 27 per cent. of the expenditure was devoted to new works. The new General Hospital at Rangoon was completed during the year and is said to form one of the most imposing buildings in the East. The Chief Court was also finished.

*Central Provinces and Berar.*—The total expenditure was £373,000, of which about £163,000 was on original works. The new Secretariat building at Nagpur was completed at a cost of £64,700, which exceeds the original estimate by about £2,200. The expenditure on public works was somewhat restricted, because the heavy expenditure on relief during 1907–8 had depleted the provincial balance.

*Eastern Bengal and Assam.*—At Dacca over £11,000 was spent on the new Government House, and preparations were made for building quarters for European and Eurasian clerks. The new Secretariat building was completed at a total cost of £86,400. More than £2,500 was spent on new roads and £3,800 on drainage.

*Madras.*—There were no Imperial works of importance in progress, and the year's expenditure, which was practically the same as last year's figure (£356,700), came almost entirely under the heads of Provincial and Local civil works.

Among the larger works in the year's programme were new Collectors' offices at Vizagapatam, Guntur and Madura, a Police Recruits' school and subsidiary works connected with the Agricultural College at Coimbatore and a new Council Chamber at Fort St. George.

Under the head of Communications work on the Indravati Bridge was commenced and good progress was made on the Berhampur and Salem water supply schemes, in spite of heavy rains and plague at the latter place.

*North-West Frontier Province.*—No works of any great importance were carried out during the year, but a large number of buildings of considerable local utility were continued, notably the new district offices, a jail, and two blocks of hospitals at Peshawar.

*Punjab.*—Imperial works in progress during the year included a laboratory and residence for the officer investigating camel diseases at Sohawa and for his staff, outhouses for the Rawalpindi Post Office, and the fitting up of an official residence in Simla for the President of the Durbar Committee. Further progress was made with the scheme for providing quarters for the European clerks of the Government of India.

Under Provincial civil works, the following buildings, among others, were completed or in progress, viz., District Court buildings at Dharmsala and elsewhere, extensions and improvements to Barnes Court, Simla, Government College, Lahore, and the Agricultural College at Lyallpur, police stations at various centres, and a court and residence for the Assistant Commissioner at Fazilka.

*United Provinces.*—The expenditure during the year was £679,700, about £36,000 of which was spent on Imperial works, £2,200 on famine relief works, and £408,000 on provincial works. Imperial works in progress include a Gurkha recruiting depôt at Gorakhpur and a combined seismograph and base-line apparatus room at Dehra Dun. Among provincial works completed during the year were the Government High School at Agra and the Agricultural College at Cawnpore. Work was begun on the hospital building in connection with the Medical College at Lucknow, and about £32,000 was spent on this work and on the equipment of the college and hospital. The mileage of metalled roads maintained rose from 6,502 to 6,612, and that of avenues from 1,823 to 1,928.

# CHAPTER XII.

## POST OFFICE AND TELEGRAPHS.

*(For further details, see Statistical Abstract for British India, Tables 45 to 47, 90 to 96, and 98 to 100.)*

### POST OFFICE.

*Financial Results.*—The receipts and charges of the Post Office for the last three years, as shown in the Finance and Revenue Accounts, have been as follows:—

| YEAR. | Receipts. | Expenditure. | Net Revenue (+) or Deficit (—). |
|---|---|---|---|
| | £ | £ | £ |
| 1908-9 - - - | 1,825,620 | 1,896,753 | −71,133 |
| 1909-10 - - - | 1,927,229 | 1,927,582 | −353 |
| 1910-11 - - - | 1,996,922 | 1,950,892 | +46,030 |

*Extent of Postal Operations.*—The extent of the operations of the Post Office, and their development during the last three years, are shown in the following tables:—

| YEAR. | Post Offices. | Letter Boxes. | Village Postmen. | Length of Postal Lines.* |
|---|---|---|---|---|
| | No. | No. | No. | Miles. |
| 1908-9 - - - - - - - - | 18,399 | 43,577 | 8,299 | 156,422 |
| 1909-10 - - - - - - - - | 18,642 | 45,753 | 8,378 | 156,761 |
| 1910-11 - - - - - - - - | 18,813 | 46,884 | 8,380 | 157,759 |
| Increase or decrease in 1910-11 as compared with 1909-10 | +171 | +1,131 | +2 | +998 |

* Including the Bombay-Aden line.

The general correspondence returns, of which a summary is given below, show an increase exceeding 25 millions of articles (excluding money orders) for 1910-11 as compared with the figures for 1909-10. Of the additional articles over 14 millions were postcards.

| YEAR. | Letters and Postcards. | Newspapers. | Book and Pattern Packets. | Parcels. | TOTAL. |
|---|---|---|---|---|---|
| | No. | No. | No. | No. | No. |
| 1908-9 - - - - - | 767,922,728 | 50,107,799 | 51,084,486 | 6,140,819 | 875,255,832 |
| 1909-10 - - - - - | 809,308,372 | 51,395,989 | 52,407,534 | 6,412,232 | 919,524,127 |
| 1910-11 - - - - - | 832,115,346 | 49,252,161 | 56,918,178 | 6,861,927 | 945,147,612 |
| Increase or decrease in 1910-11 over 1909-10 - - - - - - - | 22,806,974 | 2,143,828 | 4,510,644 | 449,695 | 25,623,485 |

*Alterations in Postal Arrangements during* 1910-11.—During the year there were few changes in the inland postal arrangements which directly affected the public. Prepayment in full of postage on postcards was made compulsory and the transmission by inland post of gold bullion exceeding Rs. 300 in value was prohibited. As regards foreign post, the Imperial penny postage scheme was extended to certain States in the Malay Peninsula; a telegraphic money order service was introduced between India and the Seychelles; and a system of direct exchange of money orders was arranged with Norway.

*Amount of Postal Matter dealt with.*—The total number of articles received for delivery, including money orders, was over 970 millions, of which, it is estimated, 99·74 per cent. were actually delivered or paid, as compared with 99·67 per cent. in the preceding year.

In 1910–11 the receipts of postal articles (excluding money orders) at the dead-letter offices were 8,837,827; of this number, 6,336,021 articles were either delivered to addressees or returned to senders, and 2,501,806 could not for various reasons, such as the absence of an address, be similarly treated. This last figure, as indicated above, is only ·26 per cent. of the total number of articles received for delivery.

The following table gives an estimate of the amount of postal matter exchanged with the United Kingdom and with other countries in 1909–10 and 1910–11:—

| Correspondence exchanged. | With United Kingdom. | | | With other Countries. | | | Total. | | |
|---|---|---|---|---|---|---|---|---|---|
| | 1909–10. | 1910–11. | Increase. | 1909–10. | 1910–11. | Increase. | 1909–10. | 1910–11. | Increase. |
| Letters and Postcards | 22,250,000 | 24,783,000 | 2,533,000 | 11,833,000 | 12,239,000 | 406,000 | 34,083,000 | 37,022,000 | 2,939,000 |
| Newspapers, Book packets, and Samples. | 13,000,000 | 14,567,000 | 1,567,000 | 7,500,000 | 9,597,000 | 2,097,000 | 20,500,000 | 24,164,000 | 3,664,000 |
| Total - - | 35,250,000 | 39,350,000 | 4,100,000 | 19,333,000 | 21,836,000 | 2,503,000 | 54,583,000 | 61,186,000 | 6,603,000 |

*Insurance, Value Payable Post, Money Orders, Savings Bank, &c.*—Information regarding these branches of the work of the Post Office can be most conveniently given in a tabular form:—

| | 1909–10. | 1910–11. | Increase or Decrease. |
|---|---|---|---|
| INSURANCE OF LETTERS AND PARCELS:— | | | |
| Number of articles insured - - - - | 1,044,957 | 1,169,428 | +124,471 |
| Number of claims admitted - - - - | 59 | 51 | —8 |
| Net payment in respect of claims - - - | £178 | £271 | +£93 |
| Receipts from Insurance Fees - - - - | £22,240 | £23,440 | +£1,200 |
| VALUE PAYABLE POST:— | | | |
| Number of articles sent - - - - | 6,870,979 | 7,354,915 | +483,936 |
| Value specified for recovery - - - - | £5,333,300 | £5,831,700 | +£498,400 |
| MONEY ORDERS:— | | | |
| Value of Ordinary Inland Orders issued in India - | £24,745,953 | £25,644,449 | +£898,496 |
| „ Telegraphic Money Orders - - - | £1,899,036 | £2,256,448 | +£357,412 |
| Average value of an Inland Money Order - - | Rs. 16 a. 11 p. 8 | Rs. 16 a. 14 p. 2 | + 2 a. 6 p. |
| „ „ „ a Telegraphic Money Order - | Rs. 85 a. 7 p. 2 | Rs. 82 a. 9 p. 4 | —Rs. 2 a. 13 p. 10 |
| Value of Foreign Orders issued in India - - | £563,751 | £538,871 | —£24,880 |
| „ „ „ paid „ - - | £1,499,429 | £1,862,208 | +£362,779 |
| SAVINGS BANK:— | | | |
| Number of Post Offices transacting Savings Bank business at end of year. | 8,767 | 8,929 | +162 |
| Number of accounts in Post Office Savings Banks - | 1,378,916 | 1,430,451 | +51,535 |
| Amount of Deposits at beginning of year - - | £10,156,101 | £10,578,119 | +£422,018 |
| „ New Deposits during year - - | £3,702,887 | £4,028,045 | +£325,158 |
| „ Interest credited „ - - - | £298,493 | £308,191 | +£9,698 |
| „ Withdrawals „ - - - | £3,579,362 | £3,635,140 | +£55,778 |
| Amount of Deposits at end of year - - - | £10,578,119 | £11,279,215 | +£701,096 |
| Securities held on behalf of Depositors at end of year - | £429,930 | £473,330 | +£43,400 |
| Number of Accounts classified according to class of Depositor— | | | |
| I. Professional - - - - - | 441,565 | 459,771 | +18,206 |
| II. Domestic - - - - - | 233,876 | 241,104 | +7,228 |
| III. Commercial - - - - - | 57,047 | 59,735 | +2,688 |
| IV. Agricultural - - - - | 30,747 | 32,395 | +1,648 |
| V. Industrial - - - - - | 52,228 | 54,061 | +1,833 |
| VI. Indefinite (including persons whose incomes are derived from others). | 563,453 | 583,385 | +19,932 |
| LIFE INSURANCE AND ANNUITIES:— | | | |
| Number of policies in existence at end of year - | 19,249 | 20,247 | +998 |
| Sum insured - - - - - - | £1,773,075 | £1,875,006 | +£101,931 |

*Offences.*—During the year under review there were 23 cases in which the mails were plundered by highway robbers, of which 17 were in British territory and 6 in Native States. The figures for the preceding year were 19 and 10 respectively.

The number of cases in which the servants of the Post Office were found guilty of offences punishable by the law was 492. The defalcations and losses amounted to £2,373, as compared with £3,130 in 1909–10. A sum of £1,341 was recovered from the offenders or their sureties; £57 was charged against the Post Office Guarantee Fund, and the remainder was written off as irrecoverable or remained unadjusted at the close of the year.

*Staff.*—The total staff of the department numbered 93,062 on 31st March 1911, as compared with 92,163 on the corresponding date in 1910.

*Sale of Quinine.*—To facilitate the supply of the drug, especially in cases of malaria, quinine is sold at Post Offices throughout India. The supplies issued to Post Offices in 1910–11 greatly exceeded those issued in the previous year owing to the substitution of 10 grains of quinine for the 7 grains in the pice packets.

## TELEGRAPHS.

The following statement refers to the whole of the telegraph system under the direct control of the Government of India, but excludes the Indo-European Department, extending from Karachi to Teheran and Fao, for which, as usual, a separate account is given. The system now consists of 74,413 miles of line, 287,940 miles of wire, and 416 miles of cable.

The principal event of the year was the introduction of the circle scheme, preliminary measures for which had been taken in the previous year. The changes included the formation of eight circles, each in charge of a Director, coterminous with the existing postal circles, the increase of the number of divisions from 20 to 34 and the abolition of all sub-divisions, the delegation to Directors of many of the powers previously exercised by the Director-General, and the formation of a purely technical branch under an electrical Engineer-in-chief. Though matters have not yet settled down thoroughly, the scheme has been successfully introduced.

Other events of interest were the abolition of the surtax on radio-telegrams exchanged between Calcutta and the pilot vessel at the Sandheads, and the reduction of the rates for telegrams between Burma and Ceylon to 3 annas per word, and of the rates for press telegrams between India and Burma on the one side and Aden and Perim on the other from 8 annas to 6 annas per word.

The following statement shows, for a period of five years, the progress that has been made in extending public telegraphic communication :—

| Year. | Capital Expenditure. | Miles of Line. | Miles of Wire. | Miles of Cable. | Offices open to the Public. | | |
|---|---|---|---|---|---|---|---|
| | | | | | Departmental, Ordinary and Postal combined. | Railway and Canal. | Total. |
| | £ | | | | | | |
| Up to beginning of 1906–7 - | *6,204,505 | 64,383 | 243,212 | 279 | 2,309 | 3,919 | 6,228 |
| During 1906–7 - - - | 379,798 | 2,814 | 15,648 | 42 | 129 | 142 | 271 |
| „ 1907–8 - - - | 272,745 | 1,371 | 10,529 | 50 | 106 | 179 | 285 |
| „ 1908–9 - - - | 239,671 | 1,140 | 8,342 | —14 | 114 | 75 | 189 |
| „ 1909–10 - - - | 167,955 | 2,712 | 5,643 | —30 | 104 | 148 | 252 |
| „ 1910–11 - - - | 147,555 | 1,993 | 4,566 | 89 | 94 | —54 | 40 |
| To end of 1910–11 - - | 7,412,229 | 74,413 | 287,940 | 416 | 2,856 | 4,409 | 7,265 |

* Excludes £6,861 cost of cable lines transferred to Military Works Department on the 1st April 1899.

A general view of the operations of the Department in 1910–11, in comparison with those of the four previous years, will be gained from the following statement :—

| Year. | Number of Messages during Year. | Gross Receipts, including State but excluding *pro formâ* Revenue. | Charges. | Net Receipts. | Percentage of Net to Gross Receipts. | Return on Capital. |
|---|---|---|---|---|---|---|
| | | £ | £ | £ | | |
| 1906–7 - - - | 11,385,166 | 827,744 | 644,205 | 183,539 | 22·17 | 2·79 |
| 1907–8 - - - | 12,749,923 | 875,778 | 752,411 | 123,367 | 14·08 | 1·80 |
| 1908–9 - - - | 13,006,778 | 874,795 | 783,022 | 91,773 | 10·49 | 1·29 |
| 1909–10 - - - | 12,084,697 | 795,828 | 807,519 | —11,691 | — | — |
| 1910–11 - - - | 13,090,228 | 840,517 | 791,833 | 48,684 | 5·79 | ·66 |

The whole of the annual expenses connected with the telegraphs in India, whether incurred on capital account for the construction of new lines or on revenue account for the maintenance and working of the system, are defrayed from the revenues of the Government of India. In 1910–11 the receipts of the Department were sufficient to defray the working expenses, and about 33 per cent. of the capital expenditure incurred during the year, leaving a charge on Government revenues of £98,871.

The gross receipts exceeded those of 1909–10 by £44,689, but were less than those for 1907–8—the best on record—by £35,261. The improvement as compared with 1909–10 was due almost entirely to an increase in message revenue consequent on the recovery of internal trade from the depression of the previous year. Working expenses, on the other hand, were less than in 1909–10 by £15,686, the saving being due chiefly to less expenditure on office stores. The net result for the year was a gain on working amounting to £48,684.

The number of telegrams sent in 1910–11 exceeds the highest number for any previous year by ·64 per cent. The value of paid telegrams, though showing an increase of 7·26 on the figure for 1909–10, is 7·77 below the highest figure.

The following figures show, for the last two years, the division of the traffic between State and Private, and between Inland and Foreign, messages respectively :—

| Class of Telegram. | 1909–10. | | 1910–11. | |
|---|---|---|---|---|
| | No. | Value. | No. | Value. |
| | | £ | | £ |
| Inland State | 834,435 | 51,437 | 989,459 | 58,579 |
| Foreign State | 15,174 | 3,640 | 16,986 | 4,235 |
| Total State | 849,609 | 55,077 | 1,006,445 | 62,814 |
| Inland Private | 9,963,541 | 376,067 | 10,683,675 | 391,568 |
| Foreign Private | 1,271,547 | 144,027 | 1,400,108 | 162,538 |
| Total Private | 11,235,088 | 520,094 | 12,083,783 | 554,106 |
| Total State and Private | 12,084,697 | 575,171 | 13,090,228 | 616,920 |

The subscriptions to the Telegraph Department for telephone and similar services rendered during the calendar year 1910 amounted to £35,803, being an increase of £3,211 over the figures of the previous year. The average annual subscriptions for the past five years amounted to £27,001.

The interruptions in 1910–11 show some increase both in number and duration on those of the previous year. In particular, the whole of the Eastern Bengal and Assam circle was seriously affected by floods during the months June to August.

In radio-telegraphy the chief event of the year was the placing of a contract with the Marconi Company for three stations with a range of 600 miles at Calcutta, Allahabad, and Delhi, and one station at Simla with a range of 300 miles. The material for these stations had not arrived at the close of the year.

## Indo-European Telegraph Department.

The system of telegraph lines and cables connecting the terminus of the Indo-European Company's telegraphs at Teheran and of the Turkish telegraph lines at Fao with the Indian telegraph system at Karachi is controlled by the Indo-European Government Telegraph Department, and consists of 1,948 knots of cable, 2,727 miles of line, and 6,984 miles of wire. This also includes a cable from Jask to Muscat, 219 knots in length.

The Department also maintains a line from Teheran to Meshed, 568 miles, which is the property of the Persian Government.

The financial results of working the Department, as compared with the four preceding years, were as follows :—

| Year. | Total Capital Outlay. | Gross Receipts.* | Expenditure. | Net Receipts. | Percentage of | |
|---|---|---|---|---|---|---|
| | | | | | Net Receipts to Capital. | Expenditure to Gross Receipts. |
| | £ | £ | £ | £ | | |
| 1906-7 - - - - | 988,204 | 102,674 | 72,104 | 30,570 | 3·09 | 70·22 |
| 1907–8 - - - - | 997,094 | 109,002 | 75,690 | 33,312 | 3·34 | 69·44 |
| 1908–9 - - - - | 998,142 | 103,689 | 75,287 | 28,402 | 2·84 | 72·60 |
| 1909–10 - - - | 1,000,263 | 111,489 | 72,084 | 39,405 | 3·93 | 64·65 |
| 1910–11 - - - | 999,966 | 121,687 | 74,749 | 46,938 | 4·69 | 61·43 |

* This represents the revenue of the Department after adjustments made in accordance with the provisions of the Joint Purse arrangement.

The gross earnings of the year increased by £10,198, due to a greater volume of both Indian and trans-Indian traffic. Working expenses increased by £2,670. The net increase was mainly due to extra payment on account of "subsidies" to chiefs in Mekran and British Baluchistan, to compensation paid to officers for robberies in Persia and enhanced expenditure on the repair of lines in Persia. The decrease of £297 in the capital account which took place during the year 1910–11 was mainly due to more stores having been issued than added to from stock during the year. On the other hand, the expenditure on the wireless installation at Jask was a set-off against this saving.

The number of messages transmitted during the year amounted to 337,161, being an increase of 23·01 per cent. as compared with 1909–10, due, as explained above, to an increase in traffic.

Under the Joint Purse Agreement, the share of the Department was £11,194 more than last year, being £126,500, as against £115,306 in 1909–10. This was principally due to the increase of traffic mentioned above. The amount paid into the Joint Purse for the year under review was £73,783.

The Departmental receipts from the Australasian Message Fund for 1910–11 amounted to £6,562, being £513 more than in 1909–10, and an increase of £327 on the receipts for 1899, on which the original Australasian Message Fund was based.

There were no total interruptions between Karachi and Teheran during the year, but between Teheran and London the lines were totally interrupted for an aggregate of 13 days 6 hours. On the Turkish route interruptions occurred between Fao and Constantinople lasting 52 days 14 hours 30 minutes, but this compares favourably with the record of the three previous years, for which the average figure was 159 days. Acts of wilful damage again increased, numbering 1,403, or 19 more than in the preceding year.

# CHAPTER XIII.

## SCIENTIFIC DEPARTMENTS.


General.
Board of Scientific Advice.
Survey of India.
Other Surveys.
Meteorological Department.
Agricultural Departments.
Civil Veterinary Department.
Forest Research Institute.
Archæological Department.
Medical Research Institutes.


### General.

Owing to the progress made in recent years in the application of science to various branches of the work of Government, a special chapter is now necessary for dealing not only with surveys, but also with other scientific departments that have been established by the Imperial or Provincial Governments for the conservation and development of the natural resources of the country. In 1910–11 expenditure on Scientific Departments amounted to about £730,000, against which must be set about £70,000 for receipts. The great bulk of the expenditure was for agricultural and veterinary work and for survey work.

### The Board of Scientific Advice.

This Board includes the heads of the Meteorological, Geological, Botanical, Forest, Survey, Agricultural, and Civil Veterinary Departments, and other scientific authorities whose special attainments may be useful. It was established in 1902 to co-ordinate official scientific inquiry, to ensure that research work is distributed to the best advantage, and to advise the Government of India in prosecuting practical research into those questions of economic or applied science on the solution of which the agricultural and industrial development of the country so largely depends. The programmes of investigation of the various departments are annually submitted to the Board for discussion and arrangement, and an annual report is published on the work done, as well as a general programme of research for the ensuing year. The reports and the programmes formulated are communicated for consideration to an Advisory Committee of the Royal Society, who from time to time furnish valuable suggestions and advice. The Board's report for 1909–10 was published in 1911.

### Survey of India.

The work of the Survey of India Department falls under various heads, namely, the trigonometrical survey, topographical and forest surveys, special surveys and explorations, and map production. The latest available information on most of these matters relates to the year ended 30th September 1910. The total cost of the Department for that year was about £223,000. The Department has been materially expanded during the last few years. A reorganisation of the establishment was carried out in 1909–10.

In 1904 attention was drawn to the defective state of the topographical survey maps, and a Committee was appointed to report on the subject. To overtake the arrears of revisional survey and to secure that the map of India should be brought up to date and revised at proper intervals, they recommended a considerable increase of establishment and an increased expenditure of £210,000 a year for the next 25 years. They also made recommendations for altering the size and improving the quality of the maps. After further inquiry the Government of India decided that a scale of 1 inch to the mile would ordinarily be sufficient, reserved forests and special areas being surveyed on the scale of 2 inches to the mile, and the ½ inch scale employed for waste and barren tracts.

During 1909–10 field operations were carried on by 18 survey parties. Twelve parties were employed on topographical, cantonment, and forest surveys; one on triangulation; one on levelling operations, and four on purely scientific operations.

*Trigonometrical Survey.*—The work of the triangulation party included principal triangulation on the North Baluchistan, Kashmir, and Upper Irrawaddy series, secondary triangulation in Upper Burma and Assam, and tertiary triangulation in Kashmir. Eleven thousand and eighty sq. ms. of principal, and 2,210 of secondary, triangulation were completed.

*Special Operations.*—The pendulum observations undertaken in 1908–9 in Central India with the object of investigating the structure of the Vindhya and Satpura ranges were extended to the east and north-east.

*Tidal and Levelling Operations.*—Observations were made at nine tidal stations by means of self-registering tide gauges. Three detachments were engaged on levelling operations.

*Magnetic Survey.*—Two detachments were employed on re-observations and detail survey, one on detail survey, and a fourth on survey along the outer Himálaya.

*Topographical and Forest Surveys.*—The total outturn of the topographical surveys during the year was 46,101 sq. ms., of which 7,513 sq. ms. were covered in the Shan States. All reserved forests are now surveyed, principally on a scale of 2 inches to the mile, in the course of the general programme. During the year forest surveys were carried out in five provinces.

*Headquarters Offices.*—The general maps are still far from completion, but satisfactory progress is being made. The number of maps issued during the year was 142,421.

### Other Surveys.

*Marine.*—The service possesses two marine survey vessels, the "Investigator" and the "Palinurus," thoroughly equipped for modern requirements.

*Geological.*—The first object of the Geological Survey Department is the preparation of a general geological map of India, and this work was continued during 1910 by surveys in Assam, Burma, Rajputana, Central India, Kashmir, the Central Provinces, and the Punjab. Various economic investigations, which form an increasingly important part of the Department's work, were conducted. These included the revision of the map of the Raniganj coal-field, and inquiries into occurrences of coal in Assam, Burma, and the Punjab, monazite in Travancore, &c. An officer has been deputed for continuous residence on the Burma oil-fields. Many applications were received for advice regarding the search for artesian water in various parts of India, and special investigations on this point were carried out in Bombay and Madras Presidencies. A representative of the Department attended the International Geological Congress at Stockholm.

*Botanical.*—The botanical survey has been placed on a more regular footing. It now includes the Department of Economic Products, and the staff has been increased. Officers of the survey serve as economic botanists to local Governments. Much of the systematic botanical work of India is done for the Department by forest officers and others outside.

### Meteorological Department.

The work of the Meteorological Department falls into two parts, the directly useful, and the purely scientific, aiming at the ascertainment of facts that shall be of practical utility in future. The scientific work includes the experimental and theoretical examination of the physical processes, on the earth or in the sun, which determine the weather. The practical work consists chiefly in the collection and distribution of current weather information. The area under observation by the Department embraces not only India but the whole of the Arabian Sea and Indian Ocean, the Persian Gulf, Persia, Arabia, Chinese Turkestan, and Tibet. There were 283 observation stations (of which 51 were non-departmental) at the close of 1910–11, ranging from the well-equipped observatories at Kodaikanal, Madras, Bombay, Alipore (Calcutta), Allahabad, and Lahore, to small stations at which observations of temperature, rainfall, and snowfall only are recorded. The Department inspects their working and collects the results; it also studies the meteorology of the Indian Ocean by means of the logs of vessels arriving at Indian and other ports, and conducts seismographic observations. Experimental work for determining the conditions of the upper air by means of small free balloons was temporarily abandoned at the end of the year. Special investigations comprised wind observations, solar and terrestrial radiation observations, sunshine observations, seismological observations, barometric observations, and observations

of temperature. Great attention is now paid to the correct registration of rainfall. The actual rainfall of the last ten years compared with the normal will be found in the annual *Statistical Abstract of British India* (Table 118). Daily, weekly, and monthly weather reports, as well as seasonal forecasts and storm warnings, are issued. Warnings of approaching storms are sent to ports on the Bay of Bengal from Calcutta, and to ports on the Arabian Sea coast from Simla. The system of flood warnings to canal, civil, and railway officers, to military officers, and to private firms continued to be useful, and 2,649 such warnings were issued during 1910–11. The publication of the meteorological atlas of the Indian seas has placed a large amount of valuable information at the convenient disposal of ship captains.

## Agricultural Departments.

*General.*—The greater part of the scheme for the development of agricultural experiment and instruction formulated in 1905 has now been realised. It is based on the generally accepted principle that effective improvement in Indian agriculture depends largely, or mainly, on the application of European science to Indian conditions. Although India is a land of skilled agriculturists, the outturn per acre of many crops is comparatively small, and the quality of some kinds of produce is inferior. Much can be done to improve and develop Indian agriculture by energetic research and by the application of more scientific methods and greater scientific knowledge than were formerly available. The necessary scientific knowledge must inevitably be obtained in the first instance by the recruitment of trained specialists from the United Kingdom; but it is an essential part of the scheme that facilities for the best agricultural training shall be made available in India, in order that the country may become self-supporting, so far as possible, in the scientific development of agricultural methods on lines suited to local conditions.

India has hitherto possessed an Imperial Department of Agriculture, under an Inspector-General and an Assistant Inspector-General. The Inspector-Generalship, however, is being abolished as, with the rapid advance of the provincial departments, an Imperial adviser has ceased to be necessary. There are nine provincial Departments of Agriculture under Directors and (usually) Deputy-Directors. To the Imperial Department is attached the Pusa Central Research Institute and Agricultural College, which has been provided with a Director and European experts in agriculture, entomology, botany, mycology, chemistry, and bacteriology, together with a cotton specialist. Further, there have been established in six provinces an agricultural college and a research station, equipped with laboratories and class-rooms, and connected with a farm of suitable size. The principals of the colleges have a staff of chemists and botanists. In Eastern Bengal and Assam there is a special fibre expert. In the various provinces there is a number of agricultural stations and of botanical, horticultural, and agri-horticultural gardens. The provincial departments distribute selected seeds and manures, and furnish advice as to implements and crops.

There is a Board of Agriculture which suggests and reviews programmes of work and discusses current problems. It held its seventh meeting at Pusa in November 1911. Agricultural memoirs and an agricultural journal are published.

*Pusa Research Institute.*—The Phipps Laboratory at Pusa is now fully equipped. Pusa is chiefly a higher teaching institution for post-graduate studies in one branch of research. Short practical courses are also given in such subjects as sericulture, lac culture, cattle and poultry breeding, &c. These courses are reserved for agriculturists, and students aiming at Government posts are usually not admitted thereto. During 1910–11 experiments were undertaken in connection with manures and permanent pasture. Many kinds of crops were under trial. The hop industry in Kashmir and fruit growing in Baluchistan were specially studied. The breeding and rearing of farm live stock and poultry is also undertaken. A dairy is contemplated. Special attention has recently been paid to wheat. Samples of the wheats grown at Pusa are tested in England for milling and baking, and the results of the tests should have a favourable influence on the Indian wheat trade. Experiments are also in process for strengthening the rust-resisting powers of Indian wheat by hybridization. There is an extensive demand in India for the Pusa wheat for seed. A general study of oil-seeds has been started on similar lines to the wheat investigations. A study was made of drainage and the water requirements of crops. The plant diseases (*e.g.*, in the tea-plant and palms) due to particular parasites have been studied. The entomologists have conducted experiments in *eri* and mulberry silk, while practical

instruction has been given in lac cultivation. The Imperial Cotton Specialist has been examining the varieties of cotton in different provinces and making recommendations as to their cultivation.

A brief sketch will now be given of the work carried out in each province during 1909–10 in connection with agricultural development.

*Bengal.*—The provincial agricultural college at Sabaur was opened in November 1910. Twenty-one students were admitted during the first year. There are six Government stations, besides a demonstration farm at Kalimpong. The Chaibassa tussar farm has been closed. There are also demonstration farms on certain Wards' estates, and others run by agricultural associations. The Bengal Provincial Agricultural Association met three times to discuss agricultural problems. Each of the divisions now has its agricultural association, and there are also district associations. The Behar Planters' Association are publishing the report of a flax expert who was had out from Belgium. They are also taking up sugar cultivation on an extensive scale. The 23 agricultural shows and fairs held during the year received grants-in-aid from Government, and at most of them the Department exhibited seeds, manures, and improved implements.

Samples of food-stuffs, manures, and soils were analysed. Researches and experiments were conducted in connection with the soy-bean, sugar-cane, and pulses. The indigo research work at Sirsiah was retarded by a flood. Investigations were made regarding diseases and pests that attack jute, potato, sugar-cane, paddy, and other crops. Experiments were made with sugar-manufacturing machinery. Besides their quarterly journal and various notes and reports, the Department published several leaflets for popular distribution. Large quantities of seeds, manures, and agricultural implements were issued from the Government store.

The Director, aided by a committee including four silk experts, is inquiring into the improvement of the Bengal silk industry, which had declined owing to the prevalence of disease. A central nursery with mulberry farm and rearing houses at Berhampore has been completed, and others have been, or are being, established. Six sons of professional rearers have been trained. Efforts to improve the native breed of worms having failed, experiments are to be made in hybridization. The services of a French expert will be engaged.

Work in connection with inland fisheries has been incorporated with that of the Department, and a Deputy Director and two Superintendents have been appointed. Besides investigations of special features, a fishery survey of the different districts has been undertaken.

*United Provinces.*—The Agricultural Court at the United Provinces Exhibition at Allahabad was a conspicuous success, and has greatly stimulated the interest of landowners in the use of labour-saving implements and machinery. The use of power-plant for pumping, and the manufacture of white sugar by machinery that does not involve the use of ingredients objectionable to the orthodox Hindoo, excited special attention. Thus the remarkable growth of public interest in the improvement of agriculture in the province which has been noted in recent years has been fully maintained. This increase of interest has led to many requests for advice, &c., and to a large sale of improved ploughs and other implements by the Department. The seed depôts, which issue wheat, cotton, ground-nut, and other seeds to cultivators, are much appreciated. The well-boring staff was less in demand, owing to the character of recent seasons. Investigations of cotton, sugar-cane, wheat, maize, ground-nut, manures, &c. were in progress at the six agricultural stations. Vernacular pamphlets were issued on ensilage and certain insect pests. The Urdu agricultural journal increased its circulation. There were several shows and fairs. The Cawnpore Agricultural College entered into permanent buildings, and 34 students obtained diplomas. Fifty-six students were trained for sugar-making at the Partabgarh centre.

*Punjab.*—The Agricultural Department is already making its influence felt, especially in the canal colonies, in which an agricultural station and seed farm are situated. A second agricultural station at Gurdaspur was opened in 1910, but has not yet issued its first experimental report. The Department has been chiefly occupied in experiments with new and improved varieties of cotton, wheat, &c., and with the introduction of reapers, ploughs, and other agricultural machinery which, owing to scarcity of labour, is growing in popularity. A commercial firm have deemed it worth while to relieve the Department of the work of distributing such machinery, the Department confining itself to demonstrating its use and instructing new purchasers.

As wheat occupies a third of the cultivated area of the province, the question of its classification and standardization receives much attention. The exporters demand "white" wheat, but the "red" varieties have been found to be "stronger" for milling and baking. The present aim of the Department is to ascertain what wheat gives the best average yield over a series of years, and to encourage its adoption irrespective of colour or "strength." As regards cotton, careful selections have been made of the American and indigenous types which do best in the Punjab. Short-stapled cottons, which give heavier yields than long-stapled, seem to be the most profitable at present. Experiments have been made in date cultivation and poultry farming. The distribution of silk-worm seed continues. The well-boring operations urgently need the supervision of an European agricultural engineer. The second year of the Lyallpur Agricultural College was fairly successful, although only 65 students—49 below the full complement—were in residence. The students show a commendable readiness for manual work.

*North-West Frontier Province.*—Experiments made with cotton in two districts were not very conclusive. A superintendent has been placed in charge of the Tarnab farm, which it is hoped to make a centre for agricultural experiments for the province. Special attention is here being paid to fruit culture, which is of particular importance in this province.

*Central Provinces and Berar.*—The superior staff of the Department is at present insufficient for the work that should be done. A larger subordinate staff is also needed for the important work of demonstration, which is being extended in co-operation with the Irrigation Department. The Agricultural College at Nagpur was well attended. Provision is being made for proper laboratories and for instruction in entomology and agricultural engineering, and the instructional farm for practical work is an important feature. There were 52 students. The "Agricultural Gazette" increases in popularity, and its circulation has risen to 5,865 copies. There are four agricultural stations, and three more are to be started. There are also seed farms which distribute selected wheat, cotton, and other seeds. Progress was made in experiments with cotton, juar, and wheat. Demonstration work to show the advantages of transplanting instead of broadcasting rice was carried out in the Chhattisgarh Division, where 6,000 acres were transplanted in the year under the advice or help of the Department. Attention is being turned to sugar-cane in the Wainganga Division. The cotton-seed farms in the Berar cotton tract grew no less than 112,000 lbs. of seed. Much attention has been paid to the demonstration of improved implements, and arrangements have been made by which a private firm will work at the improvement of such implements on the lines suggested by the Department, which has agreed to sell them. The District Agricultural Associations, consisting of representative landowners, show an active interest in improvements, and are an invaluable link between the Department and the farmer.

*Burma.*—The European staff has received a much needed addition, and in June 1911 the province was divided into two agricultural circles. The agricultural station at Mandalay was fully worked, and a second station has been established at Hmawbi. There are six experimental gardens. Experiments in paddy, wheat, tobacco, and other crops were also carried out through district agency. It is proposed to create a staff of vernacular agricultural demonstrators, who will serve as intermediaries between the Department and the public, especially the co-operative credit societies, with whom the Department is in close touch. Experiments have established the culture of moisture-resisting paddy in Akyab and ground-nuts in the dry zone. Wheat is being introduced in Bhamo, chiefly with a view to supplying the outposts of the Military Police. Cotton experiments are in progress, but the most suitable varieties for cultivation in Burma have not yet been determined. A careful study is being made of the typical paddy soils of Burma, this being by far the most important crop of the province. There is a growing interest in the working of the Department, especially on the part of the co-operative credit societies.

*Madras.*—The recently appointed mycologist is chiefly occupied with the study of the Palmyra palm disease. Many insect pests have been dealt with, and an Entomologist was appointed temporarily in May 1911. The Coimbatore College of Agriculture has turned out its first batch of three-year students. Much useful experimental and demonstration work on the main crops was done at the 10 agricultural stations. Cotton-seed was in great demand and, by careful selection, a superior strain has been obtained. The cultivation of the Mauritius sugar-cane

shows most gratifying progress, and its wide extension in the suitable tracts of South Arcot is hoped for.

Successful efforts are being made to popularise the single-plant method of planting paddy. There was a further increase in the number of water-lifts used for irrigation and for improved ploughs and harrows. A dozen leaflets were issued on all varieties of agricultural subjects. The ryots are on good terms with the officers of the Department. They visit the farms, buy seeds largely, and adopt improvements recommended. The agricultural associations, however, are in a far from flourishing condition, and the exhibitions held during the year were not of much practical value.

*Bombay.*—The year was one of well-sustained activity. Experiments in cotton selection were carried on in Surat, Dharwar, Khandesh, Nadiad, and the Sind agricultural stations. Successful results were obtained in hybridization and selection as between Cambodian, American, and native cottons. Now that definite conclusions may be considered as established, both regarding the areas suitable for exotic cotton and the best varieties of such cotton, the problem remains to apply on a large scale the knowledge thus obtained. The irrigation and manuring of sugar-cane and the question of sugar-machinery were studied at Manjri, Karanja, and Sholapur. Wheat selection continued, and excellent results were obtained with selected and hybridized seeds. Similar experiments with jowar seed are expected to produce good results in due course. Other crops which are being studied are tobacco, ground-nuts, and grain. A series of experiments is being carried out to test the comparative results of deep and shallow ploughing, and the problems of weeding black soil and of storing fodder received attention. A new farm was opened at Alibag.

The Poona Agricultural College is now completed, save for the Students' Hostel. There is a demand for trained agriculturists on the part of large landholders and native states. A Vernacular Agricultural School which has been established at Poona is proving successful in educating practical agriculturists. There are 38 Agricultural Associations, many of which are doing useful work. Twenty-nine shows and demonstrations were held.

*Eastern Bengal and Assam.*—Three appointments of Agricultural Supervisors have been sanctioned, and a staff of fieldmen demonstrators is being trained at the agricultural stations. The raiyats are very conservative, and need advice and the demonstration of new methods. New crops and improved methods have been successfully introduced in the hill tracts, but the chief essential is to awaken interest in the teeming population of the plains. There are seven agricultural stations and a newly-opened research laboratory at Dacca. Much attention was paid to soil analysis and manures. Successful experiments were made with Mauritius sugar-cane; and potatoes, tobacco, paddy, fodder crops, green manure crops, and cotton were the subjects of demonstration and seed-distribution. The Fibre Expert has obtained interesting results from the investigations regarding the selection of jute. The Department continued its sericultural operations in the Rajshahi Division and the Khasi Hills. The aim is to produce and sell seed guaranteed pure. Four apprentices passed through the Sericultural School at Rajshahi. Exhibitions were held at Comilla and Malda in which the Department took part. It also contributed to the Allahabad Exhibition. The province shares with Bengal the new Agricultural College at Sabaur, where six students from the province are now being trained.

## Civil Veterinary Department.

The Department has made very satisfactory progress, and further work cannot be undertaken without an increase of staff. The subordinate staff, though increasing yearly, is still far below sanctioned strength. A larger European staff, as well as a larger and more highly trained native subordinate staff, are greatly required. The total cost of the Department (Imperial and Provincial) was £135,000.

*Horse, Mule, and Donkey Breeding.*—In those districts of the Punjab, Baluchistan, the United Provinces, and Sind, in which the breeding of equines specially flourishes, the entire control of horse, mule, and donkey breeding has been transferred from the Civil Veterinary Department to the Army Remount Department, the work of the former being confined to cattle. Outside these districts the Civil Department controls breeding operations of every sort. The Deccan district of Bombay reverted to the control of the Civil Department in 1910–11. Government stallions are allotted only to selected districts, but the stallions provided in the non-selected districts, partly

from District Board funds and partly from provincial revenues, aided by grants from the Government of India, are controlled by the Department. Of these, there were on the register, at the end of 1910–11, 79 horse, 109 pony, and 105 donkey stallions, mostly located in the United Provinces and the Punjab. The district stallions covered 12,882 mares in 1910–11. Donkey stallions are in increasing demand.

*Cattle Breeding.*—Owing on the one hand to the decrease in the grazing areas and on the other to an increase in the more profitable occupation of cultivating crops, there has been a decline in cattle breeding in most provinces. As regards bovines, veterinary operations are directed towards improvement of the breeds, investigation of diseases, inoculation, and maintenance of veterinary dispensaries. There were at the end of the year 58 Government bulls and 680 bulls owned by district boards, the great majority of the latter being in the Punjab. There were seven provincial cattle farms, viz., two in Bengal, one in Eastern Bengal and Assam, one in the United Provinces, one in Bombay, and two in the Central Provinces. The most important centre of cattle breeding is the Hissar Government Cattle Farm, in the Punjab. This farm contained 21 herd bulls and 1,222 cows, besides a large number of young stock and cultivation bullocks, and some mules, donkeys, and sheep. The aim is to maintain a herd of 1,200 cows, so as to meet present demands for ordnance bullocks and for bulls required by the districts and at the farm. A large number of cattle fairs and shows were inspected. Prizes are offered out of Imperial and local funds. Attempts are being made at Hissar and in other parts of India to improve the breed of sheep by introducing merinos. The offer of prizes at camel fairs to encourage the breed of camels has not proved a success.

*Horse and Cattle Disease.*—Over one-half of the 229 reported cases of glanders were in Bengal. The policy of granting compensation to owners of animals destroyed for glanders has greatly facilitated the suppression of the disease. Several provinces, and particularly Bombay, Burma, and the Punjab, suffered losses from surra. Only 46 cases of anthrax amongst equines were reported in the whole of India; and of these, 27 occurred in Eastern Bengal and Assam.

Owing to the difficulty of collection, statistics of mortality from contagious diseases among cattle are defective. The number of reported deaths was 294,765, as against 287,823 in 1909–10. The deaths from rinderpest numbered 154,617, a slight decline from 1909–10. The Punjab, Burma, and Madras were the severest sufferers. The reported deaths from anthrax numbered 16,323, of which Madras contributed 11,374. There were 48,027 deaths from hæmorrhagic septicæmia, chiefly in the Punjab (17,432 deaths), and 24,651 deaths from foot-and-mouth disease, which was widely prevalent. There were 13,322 cases of black quarter. Considerable progress has been made in breaking down the opposition of the people to inoculation, which was performed in 272,000 cases for rinderpest, 24,000 for hæmorrhagic septicæmia, and 13,000 for other bovine diseases The sera for inoculation were prepared at the Bacteriological Laboratory, Muktesar. The serum method is growing in popularity, and frequent and large demands for sera have continued in excess of the supply. Considerable progress has been made in the study of surra and other camel diseases, and there is a marked decline of mortality in the eight Silladar camel corps.

*Subordinate Staff.*—Seventy-four veterinary inspectors and 754 veterinary assistants were employed in 1910–11. Of these, 614 assistants visited on tour 94,899 villages and dealt with 514,919 cases. The veterinary hospitals and dispensaries, at which 531,488 animals were treated during the year, numbered 327.

*Veterinary Instruction.*—The number of students who graduated in 1910–11 at the four veterinary colleges, viz., the Punjab, Bengal, Bombay, and Madras, and the Burma Veterinary School was 143, compared with 137 in 1909–10. There were 441 students under training at the close of the year. The Punjab College has the strongest teaching staff and the greatest facilities for teaching, and it turns out almost one-half of the graduates. At present the classes are overcrowded, and the enlargement of the building and the increase of the staff are under consideration. The Bengal College trains men for Bengal, Eastern Bengal and Assam, and Burma. The Bombay school is being gradually reorganised. The laboratories attached to the colleges were increasingly used. The demand for vernacular trained men as veterinary assistants still continues. A school for the Shan States, to train men in combating contagious diseases, has been opened.

### Imperial Forest Research Institute.

The work of the Institute comprises tuition and research in sylviculture, forest economy, zoology, botany, and chemistry. During 1910–11 investigations were undertaken in connection with working plans, the cultivation of the "sal," tree-diseases, &c., while the Forest Economist was engaged in inquiring into the utilisation of many kinds of forest produce, such as woods for railway sleepers, paper pulp, and tea boxes. The prospects of establishing bamboo pulp and match industries are promising. The Forest Chemist inquired into tannin extracts, rusa-grass oil, and the manufacture of shellac.

### Archæological Department.

The primary function of the Department is the conservation of monuments of historic and architectural interest under the Ancient Monuments Preservation Act, but exploration is undertaken so far as means and opportunity permit. In Bombay about £2,000 was spent in repairs to the caves at Elephanta and Junnar and to ancient buildings at Bijapur. In Burma measures were taken to preserve further buildings and sculptures. The excavations of the prehistoric site at Yathemyo were continued. Interesting examples of the Pyu script was discovered. In Madras explorations were carried on in three centres, and five monuments were declared "protected." The Muhammadan monuments at Agra and Fatehpur-Sikri are undergoing conservation.

A list of ancient monuments in the Punjab, the preparation of which will be spread over a number of years, was begun. Excavations were continued among the important Buddhist ruins of Takht-i-Bahai in the North-West Frontier Province and Kasia in the United Provinces. Various ancient sites around Muttra have been explored, with interesting results.

### Medical Research Institutes.

In 1907 the bacteriological laboratories in India were placed on a definite footing, and the Bacteriological Department now comprises 12 appointments distributed among the institutions named below. At the Central Research Institute, Kasauli, the staff during 1910 conducted investigations into epidemic dropsy in Calcutta, malaria in the Punjab, and other subjects, and have published reports of the results. Short courses of instruction in clinical bacteriology and technique were given to 23 officers of the Indian Medical Service. The demand for curative sera and vaccines continued to increase. The Bombay Bacteriological Laboratory was, as usual, utilised for the work of the Plague Research Commission. Much work was done in connection with plague vaccines, which are prepared here for the whole of India, and investigations were conducted showing the fecundity of rats and the pulicidal powers of the sun on clothes exposed thereto —an important fact as regards plague-disinfection. During 1910 over 625,000 doses of anti-plague vaccine were issued. The staff of 116 persons, who are annually inoculated, escape plague infection. About 119,500 rats were examined for the Bombay Health Officer, and 11,493 were found to be infected with plague. Practical instruction in plague diagnosis and inoculation was given. A great deal of bacteriological work was done. At the King Institute of Preventive Medicine, Madras, much chemical and bacteriological work was carried out. Inquiries were continued regarding the town water supplies of Madras Presidency.

# CHAPTER XIV.

## EDUCATION, LITERATURE AND THE PRESS.

*(For further details see Statistical Abstract for British India, Tables 105 to 116.)*

### EDUCATION.

*General.*—Educational institutions in India are of two classes :—

(1) Those in which the course of study conforms to the standards prescribed by the Department of Public Instruction or by the University, and which either undergo inspection by the Department, or else regularly present pupils at the public examinations held by the Department or by the University. These institutions are called "public," but may be under either public or private management. To the latter class, for example, belong those "aided schools," receiving grants from Government or from local or municipal boards, which occupy so important a place in the system of Madras, Bengal, and other provinces.

(2) Those which do not fulfil the above conditions, and are called "private."

The system of education operates, generally speaking, through three grades of institutions, viz. :—

(i) Primary schools, which aim at the teaching of reading, writing, and such elementary knowledge as will enable a peasant to look after his own interests.

(ii) Secondary schools, which are divided into English and Vernacular. Those in which English forms part of the regular course of study of all the scholars, or at least of all the scholars in the higher classes, are counted as English schools; if English is not taught, or is an optional subject only, they are reckoned as Vernacular.

(iii) Colleges, the students in which, having passed the matriculation examination of a University, are reading for the examinations required for a degree.

In addition to these there are various institutions of a special character, such as technical schools teaching arts and industries, engineering, and other branches of applied science; law schools; medical schools and colleges; and normal schools for the training of teachers.

The general educational policy of the Government of India was declared at length in a Resolution published in March 1904, of which some account was given in the issue of this Statement for 1903–4.

The following is a statement of the principal facts and figures regarding education in British India during the year under review, with a comparison of some of them with the corresponding data for 1901–2.

*Number of Students*—The total number of scholars in public and private institutions in British India in 1910–11 was 6,358,665. This represents an increase of 1,828,253 in the last decade, being at the rate of 40 per cent. Male scholars numbered 5,492,422 as compared with 4,084,130 ten years ago, and females numbered 866,243, as compared with 446,382. The increase is at the rate of 34 per cent. in the case of male scholars and 94 per cent. in the case of female scholars.

*Number and Classification of Schools and Colleges.*—The total number of institutions in 1910–11 was 172,478, of which 157,401 were for males and 15,077 for females. The total number of villages served by these schools is 602,411, and the number of towns, *i.e.*, places containing 5,000 inhabitants or upwards, is 1,571. Thus each institution for males serves nearly four towns and villages, and each institution for females serves 40 towns and villages. The number of students in each class of school or college classified according to the description of education imparted therein is as follows :—

| | 1901–02. | 1910–11. |
|---|---|---|
| UNIVERSITY EDUCATION :— | | |
| *Arts Colleges :* | | |
| English | 17,430 | 23,714 |
| Oriental | 503 | 1,375 |
| *Professional Colleges :* | | |
| Law | 2,767 | 2,772 |
| Medicine | 1,466 | 1,620 |
| Engineering | 865 | 1,225 |
| Teaching | 190 | 498 |
| Agriculture | 70 | 282 |
| SCHOOL EDUCATION, SPECIAL :— | | |
| Schools for special instruction | 35,180 | 166,118 |
| SCHOOL EDUCATION, GENERAL :— | | |
| *Public Secondary Schools :* | | |
| High Schools | 254,690 | 379,568 |
| Middle English Schools | 176,628 | 267,276 |
| Middle Vernacular Schools | 129,324 | 257,506 |
| *Private Advanced Schools* | 62,502 | 52,556 |
| *Public Primary Schools* | 3,271,379 | 4,627,706 |
| *Private Elementary Schools* | 576,497 | 572,444 |

The total number of scholars, omitting those in Baluchistan in respect of whom details are not available, are distributed as follows :—

| | 1901–02. | | 1910–11. | |
|---|---|---|---|---|
| | Males. | Females. | Males. | Females. |
| Colleges; Secondary Schools, Special Schools and Private Advanced Schools | 635,554 | 46,120 | 1,048,062 | 106,448 |
| Primary Schools and Private Elementary Schools | 3,447,839 | 399,978 | 4,440,951 | 759,199 |

Thus of the total number of male scholars 16 per cent., and of female scholars 10 per cent. are undergoing higher education.

The percentage of students to the population of school-going age, which is taken as 15 per cent. of the total population, was 28 per cent. in the case of males and 4 per cent. in the case of females.

The increase in the number of students at public primary schools in the last decade has been at the rate of 41 per cent. The attendance at secondary schools, including private advanced schools, has increased by 44 per cent. in the same period. Girls attending middle vernacular schools in 1910–11 numbered 37,776 as compared with 32,684 attending high schools and middle English schools combined.

Schools for special instruction extend over a wide range of subjects, and their total number has increased from 1,078 to 5,825 in the last decade. The number of students has, at the same time, increased from 35,180 to 166,118. The number of students of the law schools has increased from 41 to 82, while that of the students of engineering and surveying schools has decreased from 1,175 to 1,063. In technical and industrial schools the increase has been from 4,977 to 10,135.

*Stages of Instructions in Public Schools.*—The total number of scholars on the rolls of the general public schools, both secondary and primary, on the 31st March 1911, included 4,760,624 boys and 771,432 girls. Of these nearly 60 per cent. of the boys and girls were in the lower primary stage reading printed books and 37 per cent. of the girls were in a still lower stage not reading printed books.

*Results of University Examination.*—The English arts colleges contain 75 per cent. of the total number of students undergoing university education. This is nearly equal to the proportion ten years ago. The oriental arts colleges showed a tendency towards decline in the number of students up to 1907–08, but since then there has been a marked improvement, the number in 1910–11 being 1,375, the highest in the last decade. The number of law students has increased in the last decade from 2,767 to

2,772. There are 154 more students at medical colleges than ten years ago, but the increase has not been rapid since 1901–02. In the engineering colleges the rise in the number of scholars has been relatively large. The following statement shows the number of examinees for the attainment of the university degrees named, the number passed, and the race or creed of the passed scholars in 1910–11 :—

| | Number of Examinees. | Number Passed. | Race or Creed of Passed Scholars. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Europeans and Eurasians. | Indian Christians. | Hindus. | | Muhammadans. | Parsis. | Others. |
| | | | | | Brahmans. | Non-Brahmans. | | | |
| Bachelor of Arts | 2,543 | 1,293 | 9 | 31 | 530 | 492 | 173 | 32 | 26 |
| Bachelor of Science | 420 | 255 | 1 | 1 | 95 | 136 | 16 | 2 | 4 |
| Bachelor of Oriental Learning | — | — | — | — | — | — | — | — | — |
| Bachelor of Law | 1,711 | 807 | 2 | 13 | 403 | 287 | 70 | 16 | 16 |
| M.B. | 42 | 19 | 1 | 3 | 5 | 8 | 2 | — | — |
| B.C.E. | 14 | 13 | — | — | 6 | 7 | — | — | — |
| Roorkee — Civil engineer | 35 | 31 | 2 | — | 16 | 11 | 1 | 1 | — |
| Roorkee — Electrical engineer | 3 | 2 | — | — | 1 | 1 | — | — | — |
| Licentiate of Agriculture | 75 | 54 | — | — | 25 | 22 | 7 | — | — |

It is interesting to observe the different proportion of the students attending the various classes of colleges who proceed to a degree. The proportion is highest in the case of law and lowest in the case of colleges for oriental learning. The following statement shows the average number of students in each class of colleges and the number who appeared for and passed the B.A. or equivalent examination during the last three years :—

| | 1. Average Number of Students in last Three Years. | 2. Average Number examined for Degree. | 3. Percentage of Col. 2 to Col. 1. | 4. Average Number passed. | 5. Percentage of Col. 4 to Col. 2. |
|---|---|---|---|---|---|
| Arts colleges — English — B.A. | 20,996 | 2,919 | 13·9 | 1,442 | 49·4 |
| Arts colleges — English — B.Sc. | | 744 | 2·5 | 383 | 51·4 |
| Arts colleges — Oriental—Bachelor of Oriental Learning. | 1,187 | — | — | — | — |
| Law colleges—B.L. | 2,736 | 1,447 | 52·9 | 614 | 42·4 |
| Medical colleges—M.B. | 1,562 | 41 | 2·6 | 20 | 48·8 |
| Engineering colleges — B.C.E. | 1,201 | 54 | 4·5 | 27 | 50 |
| Engineering colleges — Roorkee — Civil engineer | | 26 | 2·1 | 25 | 96·1 |
| Engineering colleges — Roorkee — Electrical engineer | | 2 | ·1 | 1 | 50 |
| Agricultural colleges—Licentiate of Agriculture | 266 | 85 | 31·9 | 67 | 78·8 |

*System of Management.*—More than three-fourths of the total number of schools and colleges in India are public institutions, *i.e.*, the course of study conforms to the standard prescribed by the Educational Department or by the universities, and they are either inspected by the officers of the Department or present pupils at public examinations held by the Department or by the universities. These public institutions contain nearly nine-tenths of the total number of students in India. Of the public institutions about 86 per cent. (containing 89 per cent. of the scholars) receive public aid. Direct public management, however, is but a small feature of the educational system of India, and these institutions altogether number only some 2,000. They include nearly one-third of the total number of colleges and about one-twelfth of special schools, but in other classes of schools the proportion managed directly by Government is insignificant. The number of institutions managed by local funds and municipal boards is very much higher and such institutions contain nearly a quarter of the total number of scholars on the rolls on the 31st March. More than half the institutions in India are under private management aided by Government or by local funds or by municipal boards.

*Female Education.*—The ratio of girls to boys under instruction is about 1 to 6. Ten years ago it was about 1 to 9.

As regards creed, among Christians and Parsis the ratio of girls to boys is about 1 to 2, among Buddhists and Brahmans about 1 to 6, and among Muhammadans and non-Brahmans about 1 to 8.

As regards university education, the number of girl students in arts colleges (244) is greater than in all other colleges taken together. The number of girls studying in medical colleges (58), which is a little less than one-third of the number in arts colleges, comes next.

Of the girls attending schools for special education (17,933), as many as 2,329, or 8 per cent. were in technical and industrial schools, of whom 194 were Europeans and Eurasians, 1,193 Indian Christians, 655 Hindus, 106 Muhammadans, and 63 Buddhists. 229 were at medical schools, the majority of them being Indian Christians.

*Cost of Education.*—About two-thirds of the total expenditure can be definitely assigned to specific classes of educational institutions, and about one-third is treated as indirect expenditure on all classes of institutions combined. The following statement shows what percentage of the total expenditure is incurred on each of the different classes of schools and colleges :—

*Direct expenditure on Public Instruction :—*

| | |
|---|---|
| Arts colleges | 6·04 |
| Colleges for professional training | 2·97 |
| Secondary schools | 27·61 |
| Primary schools | 26·96 |
| Training schools | 2·42 |
| All other special schools | 4·55 |
| Total | 70·55 |

*Indirect expenditure on Public Instruction :—*

| | |
|---|---|
| University | 2·1 |
| Direction | ·96 |
| Inspection | 5·49 |
| Scholarships | 1·79 |
| Buildings | 8·89 |
| Furniture and apparatus | 1·07 |
| Miscellaneous | 9·15 |
| Total | 29·45 |

About 52 per cent. of the total expenditure in 1910–11 was met from taxation, *i.e.*, provincial revenues and contributions from district boards and municipalities. About 27 per cent. was met from fees, and the balance was provided by subscriptions, endowments, and miscellaneous receipts. These figures have been specially supplied by educational officers and are prepared on a different basis from those that appear in the Finance and Revenue Accounts.

The total expenditure has increased in the last 10 years from about £2,700,000 to £4,800,000, *i.e.*, by 80 per cent. The increase in fees is about 60 per cent., while the increase from provincial revenues and local and municipal funds is 110 per cent. The approximate average annual cost of educating each pupil in the different schools and colleges in British India during 1910–11 was as follows :—

| | Cost met from Provincial Revenues. | Cost met from Local and Municipal Funds. | Cost met from Fees and other Sources. | Total Cost. |
|---|---|---|---|---|
| | £ s. d. | s. d. | £ s. d. | £ s. d. |
| Arts colleges | 4 8 2 | 3 2 | 6 19 10 | 11 11 3 |
| Colleges for professional training | 16 15 8 | 2 0 | 5 6 1 | 22 3 7 |
| Secondary schools | 0 6 3 | 2 10 | 1 1 3 | 1 10 5 |
| Primary schools | 0 1 3 | 2 4 | 0 2 3 | 0 5 10 |
| Training schools | 9 19 0 | 17 8 | 1 0 10 | 9 17 5 |
| All other special schools | 0 14 10 | 1 11 | 0 13 6 | 1 10 3 |
| Cost per each pupil in all institutions | 0 3 6 | 2 6 | 0 6 4 | 0 12 4 |

*Hostels or Boarding-houses.*—There were, in 1910–11, 2,682 hostels or boarding-houses attached to colleges and schools with 101,240 residents. Of these 2,264 were for males and 418 for females with 78,888 and 22,352, respectively, in residence. The following statement shows the number of boarders attached to each class of schools or colleges:—

| | |
|---|---|
| Arts colleges | 7,225 |
| Colleges for professional training | 2,625 |
| Secondary schools | 59,064 |
| Primary schools | 20,869 |
| Special schools | 11,457 |

The expenditure on hostels was as follows:—

| | £ |
|---|---|
| Provincial revenues | 45,140 |
| Local or municipal funds | 7,246 |
| Subscriptions and endowments | 114,344 |
| Fees | 168,696 |
| Native States revenues | 1,153 |
| Total expenditure | 336,580 |

In regard to elementary education it should be mentioned that during the year (on 16th March 1911) Mr. Gokhale, a non-official additional member of the Governor-General's Legislative Council, introduced a Bill to provide for the gradual introduction of the principle of compulsion in the system of elementary education. The chief provisions of the Bill empowered municipal and district boards, with the previous consent of the local government, to notify areas in which attendance at school shall be compulsory for all boys (and later on, if so desired, for all girls) between the ages of six and ten years, to levy a special education rate for all such areas and in certain cases to exempt members of the poorer classes from payment of fees; it also provided for the imposition of fines on parents for non-attendance of children at school. The Government of India consulted local governments and administrations in order to ascertain the state of public opinion in regard to the proposals contained in the Bill, which thus served the useful purpose of concentrating attention on the subject. In March 1912 the Bill came up for discussion in the Legislative Council and was ultimately rejected.

Some further statistics and facts illustrating the present general situation of education in India may be cited.

Only 4·4 per cent. of the total male and ·7 per cent. of the total female population are at school. Primary school teachers receive on an average only some Rs. 8 or Rs. 9 per mensem. The average cost of a primary school throughout India—inclusive of charges for assistant teachers and contingencies—is about Rs. 13 per mensem. Large numbers of primary schools have no building at all and the buildings generally are altogether inadequate. The condition of secondary education is also a matter for concern. The teachers who in secondary schools are imparting English to the rising generation are often in receipt of salaries as low as Rs. 40 and Rs. 30 and even Rs. 20 a month. The Calcutta University fixed a minimum salary of Rs. 15 per mensem for teachers of English. Out of a total number of some 4,700 teachers of privately managed high schools in the two Bengals, about 4,200 are in receipt of less than Rs. 50 per mensem, and of these 3,300 are in receipt of less than Rs. 30 per mensem. The courses are still, in the main, literary; for want of funds it has not yet been possible to introduce systematically a practical school course, complete in itself. The wastage in the examinations, as shown in the second table on page 94 above, due very largely to the inferiority of the teachers and to the enormous size of their classes, is unquestionably a fruitful cause of inefficiency. The development of higher education in colleges and higher technical institutions is naturally hampered by the moderate standard of English hitherto attained in the secondary schools.

The numbers of persons returned as illiterate at the census of 1911 for the various provinces are as follows:—

| | | | |
|---|---|---|---|
| Bengal | 49,362,448 | in a population of | 52,668,269 |
| Bombay | 18,299,816 | „ „ | 19,672,642 |
| Burma | 9,368,205 | „ „ | 12,039,083 |
| Central Provinces and Berar | 13,420,072 | „ „ | 13,916,308 |
| Eastern Bengal and Assam | 32,056,601 | „ „ | 34,018,527 |
| Madras | 38,311,844 | „ „ | 41,405,404 |
| North West Frontier Province | 2,123,947 | „ „ | 2,196,933 |
| Punjab | 19,200,111 | „ „ | 19,974,956 |
| United Provinces | 45,563,579 | „ „ | 47,182,044 |

As regards educational progress in the different provinces throughout the year under review, the departmental reports are by no means disappointing when compared with those for the preceding year. On the contrary, during the year the moderate rate of progress already attained has for the most part been continued or even accelerated, as may be judged from the following short summary of a few of the more interesting features of the year's record in the several provinces.

*Madras.*—In the Madras Presidency there were 766,884 and 156,027 male and female scholars in 23,426 and 900 primary schools for boys and girls respectively. Secondary schools numbered 558 for males (with 118,917 scholars) and 248 for females (with 33,496 scholars). In the 30 Arts and five professional colleges for males there were respectively 3,709 and 879 students. During the year, on the recommendation of a committee of representative gentlemen interested in education, Government approved of the levy of increased rates of fees for colleges and secondary schools under public management with effect from 1st July 1911. In secondary education the year was marked by great improvements in equipment, and classification of pupils and curricula. The total expenditure on education amounted to £851,167 (an increase of 7 per cent.) of which public funds contributed 45 per cent., fees 29 per cent., and other sources 26 per cent.

*Bombay.*—In the Bombay Presidency the year was marked by progress in all branches of educational work. Especially satisfactory is the extension of primary education. A special grant of £9,600 was made for the purpose of opening new schools, and 524 new schools were opened. The new schools opened in the preceding year were reported to be doing fairly well. The total number of institutions has increased from 15,432 to 16,186, and the total number of scholars from 850,293 to 868,535. In public institutions, *i.e.*, those under Government inspection, the number of male pupils rose from 653,704 to 667,469, and the number of female pupils from 116,731 to 119,596. The total number of Arts colleges remained the same, viz., 11, but the number of students continued to rise; there are now 3,258 in the Arts colleges and 1,200 in the four professional colleges. The secondary schools numbered 541, with 72,043 scholars, including 6,852 girls. The total expenditure on education in the Presidency rose from £823,480 to £826,674.

*United Provinces.*—On the whole the record for the year under report was less disappointing than for the preceding year in the United Provinces. In spite of a net decrease of 95 in the number of institutions and a diminution in the number of public institutions by 177 the results of the year's administration are in other respects satisfactory. The decrease was mainly in primary schools. The cause of the decrease is not as yet sufficiently known to admit of the immediate discussion of remedies, but it is largely of a local character and may partly be attributed to outside circumstances, such as the prevalence of plague and other epidemics and to the weeding out of schools which fall below the standard, than to any radical defects in the system of instruction. Progress in higher and secondary education was on the whole satisfactory. The number of students in Arts colleges increased very slightly after abnormal increases during the preceding years. In secondary education there was an improvement. The provincialisation of High Schools was perhaps the most important event of the year. School committees with advisory functions were formed with a view to keeping the administration in touch with local opinion. Special inspectorships of drawing, oriental languages, and science were created. Activity was shown in advancing the condition of technical education, and greater progress is expected to follow in view of the establishment of a technological institute at Cawnpore. The total expenditure on education rose by £1,107 to £622,615.

*Punjab.*—Judged by the figures for school attendance the year was one of considerable progress, the total increase being 12,901 pupils in public institutions and 4,573 pupils in private schools. The proportional increase was greatest in high schools, where the number of pupils rose by nearly 10 per cent., and in Arts Colleges, where the increase exceeded 10 per cent. There was an addition of 6,024 pupils to the attendance rolls of primary schools. The increased attendance in high schools and arts colleges has been accompanied by larger fee receipts, the total income from fees having exceeded that of the previous year by no less than £12,581 The present scale of fees does not appear to have operated in any way as a deterrent. The total expenditure on education in the Province was £403,804.

*Central Provinces and Berar.*—The general progress made during the year in the Central Provinces and Berar was quite satisfactory. Schools and scholars in British territory have increased by 119 and 6,091 respectively. This increase is chiefly confined to primary schools for boys. The extension of primary education for boys is reported to be practically a question of increase of expenditure. The demand for education is rapidly increasing, and cannot be met with the funds available. The prevalence of plague interfered with the year's work in all branches of education, and mere statistics would therefore be misleading, particularly for secondary and collegiate education. In spite of the epidemic of plague at Nagpur the Morris College was kept open. The year was marked by the establishment of a new training college at Jubbulpore. The total expenditure on education rose to £205,697.

*Burma.*—The main features of the year's work have been the continued advance of general education above the primary stage and the continued decline of the numbers in the lower primary or elementary stage. The training of teachers and technical instruction have been disappointing departments. Female education has, however, advanced. The number of students enrolled at the two Arts colleges rose from 244 to 278, the highest figure yet attained; pending the solution of the standing problem of the establishment of an independent university for Burma, creditable results were achieved in the examinations held under the auspices of the Calcutta University. The number of secondary schools rose from 831 to 876, and of scholars from 74,547 to 78,283. The total number of pupils under instruction for all branches of education fell from 433,973 to 429,992. An increase of over £6,000 occurred in the total expenditure on education, which amounted to £290,839.

*North-West Frontier Province.*—In the North-West Frontier Province the year was one of satisfactory progress. Benefit has resulted from the simplification of curricula which were previously too ambitious, from a reorganisation of the teaching service and from the provision of more suitable rates of pay, in return for which real efficiency is demanded and a supervision is exercised which is no longer limited to a routine inspection of registers and returns. The total number under instruction, in public and private institutions combined, was 31,891, as against 30,045 for the preceding year. Increases are recorded in the number of pupils at both secondary and primary schools, though the actual number of public primary schools decreased by three. The one Arts college in the province, the second-grade Mission College at Peshawar, contained 22 students, an increase of three on the previous year; the scheme for the opening of an Islamic College still commands the hearty support of the Mussulmans of the Province from nawabs and khans down to people of the lowest degree. The total expenditure of the year was £25,891.

*Bengal.*—Steady progress was reported in all branches of educational work in Bengal. The number of boys under instruction was 1,340,836, representing 32·6 per cent. of the total male population of school-going age. Primary schools for boys numbered 35,437, with 997,953 scholars. 1,232 *gurus* obtained efficiency certificates at the *guru*-schools in 1910; but a large proportion of *gurus*, after they have been trained, take up more remunerative work than teaching. The number of males under instruction in the Arts and professional colleges was 8,255 and 2,176 respectively. Secondary schools for males numbered 1,522, with 182,519 scholars. An increase of nearly 15,000 in the number of Muhammadans under instruction is again reported. As regards female education, there were 146,223 girls under instruction in primary schools, and 8,070 in secondary schools. The most serious obstacles to the progress of female education continue to be the want of female teachers and the general indifference of the public. The total expenditure rose from £1,005,912 to £1,071,416.

*Eastern Bengal and Assam.*—The Education Department was occupied during the year with the preparation of a scheme containing proposals, on which orders have since been passed, for the devolution of powers in routine matters from the Director of Public Instruction to his circle inspectors. The year was marked by an increase of pupils. In secondary English schools the increase was over 20,000, a fair share of whom were Muhammadans. The growing demand for English education thus shows no sign of abatement. The decline of 1909–10 in the number of boys in primary schools, which contrasted with the large rise of previous years, has been arrested, and the figures for 1910–11 show a net increase of 3,208. The number of students in the Arts colleges rose again, the increase for the year being 384. The total number of persons under instruction rose from 907,509 to 984,213. The total expenditure on education for the year was £487,018, an increase of 10·7 per cent over the figure for 1909–10.

## Literature and the Press during the Calendar Year 1910.

*Bombay.*—The Indian Press Act of 1910 did not affect the quantity of the literary output. Seditious writing, however, has been checked; the Government have had to take action in respect of only four publications. 2,338 publications were registered, as compared with 2,073 in the previous year. The total increase is made up chiefly of an increase of 107 under the heading Miscellaneous. In Arts and History the number has fallen; in Biography, Science (Mathematical and Mechanical), Languages, Medicine, Philosophy, and Religion it has risen; in Politics it has fallen from 31 to 8; Fiction shows a rise from 74 to 123; Drama from 50 to 72; and Poetry from 323 to 357. The number of English books fell from 113 to 87; noteworthy among them were *Notes on Modern Jainism*, by Mrs. Sinclair Stevenson, M.A., and *A Financial Chapter on the History of Bombay City*, by D. E. Wacha. 359 books were published in Marathi, including, under the head of Drama, an adaptation of Shakespeare's *Measure for Measure*, and a historical play dealing with the murder of the fifth Peshwa. In Gujarati 475 books were published, among which a life of the late King-Emperor may be noticed.

*Madras.*—The Indian Press Act did not in any way deleteriously affect the literary outturn of the Presidency during the year 1910, but there has been a noticeable decline in the number of publications of a political character. There was a further increase in the total number of publications registered during the year, the number being the largest on record. The increase was in all subjects excepting Biography, Medicine, and Politics. It is interesting to note that in the year under review one book was published in Toda, the language spoken by the Todas of the Nilgiris; one in Kuvi, the language of the tribe of that name in the Agency tracts of the Vizagapatam District; four in Lushai, the dialect current in the North Lushai Hills (in Assam); and one in Pali. As regards the main vernacular languages, there was an increase in works published in Tamil, Telugu, Malayalam, and Kanarese; there was also an increase in Sanskrit and English works, but a fall in the number of those in Hindustani, Arabic, and Persian. The following individual works may be noticed: under the head of Politics an interesting publication was *The Indian Constitution*, by A. Rangaswami Aiyangar, B.A., B.L., which may be regarded as a literary first fruit of the widening of the political life of the Indian people by the inauguration of the new Reforms Scheme. Another work dealing with an economic subject which is worthy of some notice was *Sketches of Indian Economics*, by R. Palit. *The Science of Social Organisation* was another work of some interest. It deals with the general principles of Hindu social organisation as they may be gathered from the teachings of the great Indian law giver, Manu.

*Bengal.*—The improvement in the tone of the Press, which began last year, was fully maintained during 1910, and may be attributed partly to the Press Act. It is worthy of note that of the publications proscribed under the Act a large proportion were published in Europe and America, while of the 14 newspapers proscribed, all with the exception of two, which emanated from Pondicherry, were American and European.

The literary activity of the Province is steadily increasing and trying to find an outlet through useful literature. In popular literature biography, history, and books on travel seem to be ousting drama and fiction. In the departments of Philosophy and Religion great activity is noticeable in translating Sanskrit literature into the vernaculars. The only department of literature which has up to the present failed

to engage any non-official attention is Science, theoretical or practical. The periodical literature is not only increasing in bulk, but yearly gaining more and more in importance.

*United Provinces.*—The Press Act has not affected the output of literature. The number of publications has increased from 1,988 to 2,145, a figure never before reached. But the Act has had a sobering effect on literature dealing with politics and kindred subjects. Most of the increase in the number of publications may be accounted for by the rise in the number of religious books published, viz., 40 per cent., from 536 to 681; Islam is mainly responsible for this revival. The Moslem religious publications are mainly reprints with modern commentaries of standard works, but there are two books on the chronology and biography of the men who handed down the traditions of the Prophet, which will be welcome to scholars in Europe as well as India. In Science proper not one single original work was published in the province during the year. There was an unparalleled number of legal publications, including two annotated editions of the new Code of Civil Procedure in the vernacular. One philosophical work may be mentioned—*Outlines of Indian Philosophy;* this is an attempt to find a principle of unity, or at least a common platform in the diverse systems of Indian speculative thought. In regard to periodicals, there was a fair proportion of publications devoted to theosophical activities, such as *The Central Hindoo College Magazine* and *The Sons of India.* The total absence of Swadeshi publications is significant of a change of sentiment. The most interesting "political" book of the year is *The Arya Samaj and its Detractors: a Vindication;* by Munshi Ram and Ram Deo.

*Punjab.*—The Press Act has checked the output of books of a seditious or inflammatory nature, while, on the other hand, several prose and verse pamphlets on the advantages of British rule have been published. The total number of publications during the year 1910 was 1,408, as against 1,191 in the previous year; of these, 458 as against 299, and 597 as against 533, were published in Punjabi and Urdu respectively. Hindi publications rose from 75 to 82, English sank from 86 to 80, and Bilingual rose from 84 to 107. The most popular subject was poetry, numbering 441 publications as against 332 in the preceding year. There were 316 publications of a miscellaneous character, including books on the subjects of morality, social reform, temperance, domestic economy, and education; they include a translation of Smiles' *Self Help.* The number of works on religion decreased from 240 to 235. The number of dramas and also that of novels was more than double that of the previous year. No books on science (mathematical and natural) were published, except some ordinary school books.

*Burma.*—Burma was not affected by the Press Act, as no literature of a "political" character exists in the province. The total number of publications registered in 1910 was 373, the increase since the preceding year being larger than any recorded up to date. The figures for the three previous years are as follows:—1907, 171; 1908, 221; 1909, 246. Of the 373 publications the majority are either religious works or dramas, the former numbering 146, the latter 60. There was an extraordinary increase (300 per cent.) of activity in drama. The Burmese stage play is now written not only for the stage, but for the general reading public. In one respect these plays are similar to the mediæval mystery play; they are a combination of quite different elements. The three elements into which they may be analysed are moral platitudes, love scenes, and buffoonery. These plays differ, however, from the mysteries in being without the sanction of the national religion. They are an expression of popular instincts, and for this reason, though usually written by authors of little education, are of more interest than the academical scriptural writings, which bulk largely in the remainder of the literary output of the province. Among religious works there are various addresses by priests, but no one of these has yet taken the place vacated by Lèda Sayadaw.

*Eastern Bengal and Assam.*—As a result of the Press Act there has been no registered production of a directly seditious nature during the year, though there has been considerable activity in the secret production and dissemination of leaflets. The total number of publications during the year was 534 (530 catalogued); the number of publications catalogued during the previous year was only 201; there was therefore a net increase of 329, or about 164 per cent. All departments of literature contributed to this increase except poetry; no less than 357 works were of a scholastic nature, 314

being ordinary school books, the rest keys. Next to scholastic works religious books form the most numerous class—they almost all relate to Hinduism under one aspect or another. As regards the languages of the publications there were few of interest in Assamese, but a considerable number in Bengali included *The Past and Future of Modern India*, which purports to be a summary of a lecture delivered by Pandit Siva Nath Sastri at Dacca in 1909, and calls attention to the greater possibilities of advance in civilisation and government which the political unity of India under the British Raj has introduced.

*Central Provinces.*—Unlike preceding years, the year under review has not been fruitful in the production of political pamphlets; this was to be expected as an effect of the Press Act. The total number of publications registered during the year was 136, the largest figure for the past ten years. Forty-four of these were in Marathi, 40 in Hindi, and 24 in English. They dealt with the usual variety of subjects. Educational works numbered 42, double the number for the preceding year. The literary output of the province is still very restricted, and though there has been an increase in quantity, there has been no improvement in its quality.

# CHAPTER XV.

## LOCAL SELF-GOVERNMENT.

GENERAL. | DISTRICT AND LOCAL BOARDS.
MUNICIPALITIES. | PORT TRUSTS.

### GENERAL.

Local self-government, municipal and rural, in its present form is essentially a product of British rule. Beginning in the Presidency towns, the principle made little progress until 1870, when it was expressly recognised by Lord Mayo's Government that "local interest, supervision, and care are necessary to success in the management of funds devoted to education, sanitation, medical charity, and local public works." The result was a gradual advance in local self-government, leading up to the action taken by Lord Ripon's Government in 1882–84, and to various provincial Acts passed about that time, which greatly altered the constitution, powers, and functions of municipal bodies—especially by widely extending the elective system —and which still form the basis of the provincial systems in force. At the same time the resources and financial responsibility of municipalities were increased. Municipal committees now exist in most towns of any importance. In the rural districts local and district boards were established by Acts of 1883–5. The local boards are under the control of a general district board, or send delegates to a district council. The systems vary in different provinces, as a large discretion is left to the provincial governments. The elective principle has been adopted in varying degrees. There is also a smaller number of non-elective local bodies discharging similar duties in towns other than constituted municipalities and in cantonments. In the Punjab, United Provinces, Burma, Bombay, Central Provinces and Berar, and North-West Frontier Province certain provisions of the Municipal Acts are extended to small towns which are not fitted for the full responsibilities of municipal government, but nevertheless require organised measures for sanitation and other purposes. These, which are described as Notified Areas, must not be purely agricultural, and must not have a population exceeding 10,000. In the chief ports specially constituted boards or "trusts" have charge of harbour works, port approaches, and pilotage.

### MUNICIPALITIES.

(*For further details see Statistical Abstract for British India, Tables* 101 *to* 103.)

*General.*—The municipal bodies exist, raise funds, and exercise powers under enactments which provide separately for the special requirements of each province and of the three presidency capitals, Bombay, Calcutta, and Madras. In the municipalities as a whole about half of the members are elected by the townsfolk under legal rules; in every town some, and in a few minor towns all, of the members are appointed by the Government. In almost every municipal body one or more Government officials sit as members. The number of Indian and non-official members, however, in every province largely exceeds the number of Europeans and officials. The municipal bodies are subject to Government control in so far that no new tax can be imposed, no loan can be raised, no work costing more than a prescribed sum can be undertaken, and no serious departure from the sanctioned budget for the year can be made, without the previous sanction of the Government; and no rules or byelaws can be enforced without similar sanction and full publication.

There were 715 municipalities at the end of 1910–11, containing within their limits about 17 million people, or 6 per cent. of the total population of British India. Generally speaking, the income of municipalities is small. Their aggregate income amounted to about £4,600,000, excluding loans, sales of securities, and other extraordinary receipts. About 40 per cent. of the total is provided by Calcutta, Bombay, Madras, and Rangoon. Loans are incurred for water supply and drainage schemes, the cost of which is too large to be defrayed from ordinary revenues. Municipalities other than the above four get their loans chiefly but not entirely from Government. The sources of municipal revenue, apart from loans and Government contributions, fall mainly under the two heads, "Taxation" and "Municipal Property and

Powers apart from Taxation." Of the taxes the most important are octroi duties, levied in the United Provinces, the Punjab, the North-West Frontier Province, the Central Provinces and Berar, and Bombay, and the tax on houses and lands, which holds the chief place in the other provinces, as well as in Bombay city, and also contributes a considerable share of the receipts in the provinces named above. These two taxes each yield about one-fifth of the total income of municipalities. There are also water, conservancy and lighting rates, tolls on roads and ferries, taxes on animals and vehicles, and in some places a tax on professions and trades. The other sources of income include cattle-pound receipts, rents of municipal property, such as markets and slaughter-houses (an important item in Burma), and fees of various kinds. The objects on which municipal funds are spent are, mainly, water supply, hospitals, vaccination, conservancy, drainage, lighting, fairs and markets, and education.

The interest in municipal elections, and in municipal affairs generally, is not usually keen, save in a few cities and large towns; but, as education and knowledge advance, interest in the management of local affairs gradually increases. In most provinces municipal work is fairly well done, and municipal responsibilities are, on the whole, faithfully discharged, though occasional shortcomings and failures occur. The tendency of local bodies, especially in the smaller towns, is to be slow in imposing additional taxes, in adopting sanitary reforms, and in incurring new expenditure. Many members of municipal bodies are diligent in their attendance, whether at meetings for business or on benches for the decision of petty criminal cases.

The following table exhibits the constitution of the municipal committees in the chief provinces in 1910–11:—

| | Number of Municipalities. | Total Number of Members. | By Qualification. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Indians. |
| *Presidency Towns, &c.:—* | | | | | | | | | |
| Calcutta | 1 | 50 | — | 25 | 25 | 8 | 42 | 19 | 31 |
| Bombay | 1 | 72 | — | 16 | 56 | 6 | 66 | 17 | 55 |
| Madras | 1 | 35 | 1 | 14 | 20 | 5 | 30 | 12 | 23 |
| Rangoon | 1 | 25 | — | 6 | 19 | 5 | 20 | 13 | 12 |
| *District Municipalities:—* | | | | | | | | | |
| Bengal | 130 | 1,776 | 146 | 711 | 919 | 258 | 1,518 | 246 | 1,530 |
| Bombay (including Sind) | 157 | 2,182 | 402 | 883 | 897 | 481 | 1,701 | 148 | 2,034 |
| Madras | 61 | 940 | 71 | 403 | 466 | 189 | 751 | 149 | 791 |
| United Provinces | 87 | 1,175 | 99 | 178 | 898 | 197 | 978 | 144 | 1,031 |
| Punjab | 107 | 1,220 | 224 | 424 | 572 | 249 | 971 | 102 | 1,118 |
| North-West Frontier Province | 7 | 130 | 39 | 91 | — | 39 | 91 | 19 | 111 |
| Central Provinces and Berar | 57 | 758 | 32 | 248 | 478 | 167 | 591 | 73 | 685 |
| Eastern Bengal and Assam | 51 | 668 | 70 | 262 | 336 | 125 | 537 | 73 | 595 |
| Burma | 45 | 571 | 177 | 309 | 85 | 193 | 378 | 160 | 411 |

*Bengal.—Calcutta.*—The Calcutta Corporation consists, under the Act of 1899, of 25 elected commissioners and 25 appointed—four by the Bengal Chamber of Commerce, four by the Calcutta Trades' Association, two by the Port Commissioners, and 15 by the Local Government. There is a General Committee, with executive powers, consisting of the chairman and 12 members, who are selected from among the commissioners. Progress was made in 1910–11 with great schemes of water supply and drainage (*see* Chapter XVI. under "Sanitation"). With the growth of prosperity the valuation of the city has increased by 58 per cent. in ten years to £2,364,658, and the revenue shows great elasticity. Retrenchments have been effected in establishment and other charges, and the financial position is stronger than for many years. The revenue collected in 1910–11 amounted to £577,338, while the expenditure was £524,974. A loan of £200,000 was raised, and the debt at the close of the year amounted to £3,221,800. The interest and sinking fund charges for 1910–11 were £168,922. Byelaws relating to dairies, stables, public buildings, and markets were issued. Progress in the improvement of bustees was well maintained. Special attention has been paid to the question of road repair. The lighting of the town is being taken over by the corporation, and a new lighting department has been formed. An Act was passed in August 1911 constituting an Improvement Trust with powers to undertake schemes for clearing congested areas and making street improvements, the cost to be met from an increased duty on property transfers within the municipality, a terminal tax on passengers entering and leaving the town, a duty on jute, and contributions from the municipality and the Government of India.

*Interior of Bengal.*—Contested general elections were held in 9 out of the 130 municipalities. The percentage of voters varied from 96 to 18 per cent. The total number of ratepayers is about one-sixth of the total population of the municipalities. The average attendance of members at the meetings was fairly satisfactory. The incidence of municipal taxation for the whole province averaged 2*s.*, as against 2*s.* 1*d.* in 1909-10—the difference, however, is due to the former figure being chiefly based on the 1911 census. There were revisions of assessments in 89 municipalities. The number of municipalities who levy a tax on persons somewhat exceeds that of those who levy a rate on holdings—a few levy both. The total revenue of the Bengal municipalities amounted to £370,826, and the ordinary expenditure to £337,311. Forty municipalities were in debt at the close of the year to a net amount of £270,703, more than half of which was on account of Howrah, which adjoins Calcutta. A free hand in respect of their budgets has been allowed to four large municipalities as an experiment. The result in two cases is reported as satisfactory, as regards the other two there is no report.

*United Provinces.*—Numerous changes in the working of municipalities have been introduced as a result of the report of the Decentralisation Commission. In 18 municipalities the boards have elected non-official chairmen. The work of these non-official chairmen, so far as can be judged by short experience, is satisfactory. Polls were held in 60 municipalities, and 51 per cent. of the electors voted. The income of the municipalities was £469,219, of which about £249,082 was derived from octroi duties. It has been decided to abolish octori in a number of the smaller towns in accordance with the report of the recent Special Committee on Municipal Taxation. The subject of the replacement of the tax is being considered. The incidence of taxation as a whole was about 2*s.* 5*d.* per head. The expenditure amounted to £492,983. The draft of a new municipal bill is in preparation. Trust Funds have been formed in Lucknow, Allahabad, and Cawnpore for the purpose of opening out congested areas.

*Punjab.*—The powers of self-government provided in the municipal Acts were granted more freely in the Punjab than elsewhere. Owing, however, to the unsatisfactory working, lack of equity in assessing taxation, and expensive machinery of the smaller municipalities which have insignificant incomes, many municipalities have been converted into notified areas. This process continued in 1910-11, and at the end of the year there were 107 municipalities, besides 102 notified areas, in which cheapness and simplicity of administration are the chief requisites. The system by which each religious community elects its own representatives is being tried in some towns. In the Northern Divisions elections are largely arranged without contest. In the Southern Division contests were keener. The working of the municipal committees was on the whole satisfactory. The total income of the year amounted to £412,856, and the total expenditure to £395,532. Octroi, the receipts from which unproved, accounts for over 60 per cent. of the total income. There appears to be no immediate likelihood of abolishing octroi, possible substitutes, such as the house tax, being highly unpopular. The machinery of collection, however, has been improved. The average incidence of taxation was 3*s.* 1*d.* per head. A new municipal Act, defining and extending the functions of municipalities in the Punjab, was passed in April 1911.

*North-West Frontier Province.*—One municipality was converted into a notified area. The ordinary income of the municipalities amounted to £45,564, of which about 56 per cent. was derived from octroi duties. The average incidence of taxation was 3*s.* 5*d.* per head. The elective system is not in force in this province, and members are nominated for three years.

*Burma.—Rangoon.*—The ordinary revenue of the Rangoon municipality rose to £246,606, and the expenditure to £231,428. Apart from normal growth, the increase in the former case was due principally to the enhancement of assessments, and in the latter case to increased expenditure on public works of various small descriptions—the paving of the main thoroughfares occupied special attention—and an outbreak of glanders. The incidence per head of direct taxation was 13*s.* The outstanding loans at the end of the year rose to £1,245,000, including the reclamation works loans of £403,300. The tax on Government property has been fixed at 7½ per cent. of the taxation demand on private property.

*Interior of Burma.*—In some municipalities members had to be nominated owing to lack of candidates for election. Plague had again a serious effect on the finances,

and expenditure in other directions had to be postponed. A recurring contribution of £20,000 is granted from imperial revenues to meet special sanitary expenditure in the province. Municipalities have been generally administered with efficiency, and most of the members take an interest in the affairs of the towns. The notified area of Insein was converted to a municipality, and two new notified areas were created. The aggregate income, excluding debt heads, was £252,806, of which £98,865 came from rates and taxes, and £94,433 from markets and slaughter-houses. The expenditure amounted to £257,274. The average incidence of taxation was 2*s.* 9*d.* per head of population. New taxes were imposed in several municipalities.

*Central Provinces and Berar.*—The elective principle is in force in all but seven of the 57 municipalities. The interest taken in elections varies greatly in different places. The attendance of members was generally satisfactory. The total income of the municipalities was £168,046, over 60 per cent. of which was derived from rates and taxes. The expenditure amounted to £185,578, an increase over 1909–10, chiefly under the heads of water-supply and roads. The average incidence of taxation was about 2*s.* 5*d.* per head. The octroi rules have been revised with a view to greater facilities in the matter of refunds. Octroi is not levied in Berar. Of the 44 municipalities in the Central Provinces proper, no less than 15 subsisted during 1910–11 on revenues smaller—in most cases considerably smaller—than £700. The total indebtedness of the municipalities to Government was £125,690, over half of which was owed by Nagpur and Jubbulpore. The financial position of the borrowing municipalities is sound.

*Eastern Bengal and Assam.*—Keenly contested elections were rare. The improvement shown in the previous year's returns of attendance at meetings was not maintained. The income of the 51 municipalities in 1910–11 was £111,416, and the average incidence of taxation was 2*s.* 1*d.* per head. The tax on holdings was in force in 17 towns, the tax on persons in the remainder. The expenditure amounted to £108,899. Unwillingness to fix adequate rates of taxation, poor collections, and a general lack of interest are the faults most complained of in the municipal administration of this province.

*Madras.—Madras City.*—The income in 1910–11, excluding loans and advances, amounted to £208,889, and the expenditure to £243,969. The average incidence of taxation was about 4*s.* 4*d.* per head. The principal taxes are a graduated tax on trades, professions, a tax of 10 per cent. on the annual value of buildings and lands, a water and drainage tax, and a lighting tax levied on the same basis, besides taxes on animals and vehicles, &c. The outstanding debt of the municipality at the end of the year was £540,416, against which must be set a sinking fund of £170,880.

*Interior of Madras.*—The number of municipal councils in the mufassal was 61, in 58 of which the elective system was in force. The total electorate was 2·1 per cent. of the aggregate municipal population. No candidates appeared for two elective seats. Out of 1,566 meetings 113 were adjourned for want of a quorum. Seven councils consisted entirely of Indian members. The income increased to £372,599, and the average incidence of taxation was nearly 1*s.* 9*d.* per head. The total expenditure was £370,224. The outstanding debts at the end of the year amounted to £196,760, against which there was a sinking fund of £13,040. A fair standard of efficiency was maintained in some municipalities, but in seven (including Ongole, Tanjore, Vizagapatam, and Madura) the administration left much to be desired.

*Bombay.—Bombay City.*—Bombay City is administered by a corporation of 72 councillors, of whom 16 are nominated by the Government, 36 are elected by the ratepayers, 16 by the justices, 2 by the Chamber of Commerce, and 2 by the University. The ordinary income in 1910–11 was £813,077, and the expenditure £752,125. There was thus, as against a deficit in the previous year, a surplus, due to general expansion of revenue and increases in taxation on the one hand and a decrease, principally under conservancy, on the other. But, although the financial position is assured beyond question, apprehension is expressed that the permanent rate of ordinary expenditure is expanding faster than the natural growth of revenue, and expenditure is being carefully watched in consequence. During the year the general tax was raised from 9⅛ to 10⅛ per cent., and additional taxes were imposed on grain and firewood. The average incidence of taxation per head was 14*s.* 4*d.* At the end of the year the outstanding debt was £3,752,543, and the invested sinking fund £697,881. The expenditure on loan works amounted to £167,266. The expenditure on plague preventive measures from the outbreak of the epidemic in 1896, to the end

of March 1911, has amounted to £494,570, of which £96,700 was received from the Government, and the remainder met partly from loans and partly from municipal revenues.

The capital expenditure of the Bombay City Improvement Trust, which is engaged in reclaiming land, clearing slum areas, laying out new streets, erecting chawls, &c., amounted to £375,460. During the year the large area of 690,290 sq. yds. of land was acquired, and good progress was made in erecting chawls. A sterling loan of £333,300 was raised in 1910, the amount of the loans being thus brought up to £2,999,600. The year's revenue, derived from the municipal contribution and receipts from investments, rents, and other property, amounted to £170,882, and the expenditure, exclusive of capital charges, to £160,191. A grant of £333,000 has been made to the Trust out of the Government of India's surplus of 1910–11.

*Interior of Bombay.*—During 1908–9, with the object of quickening interest in local affairs, Government relaxed its control by empowering 87 municipalities not specially excepted to select non-official presidents and by conceding to five city municipalities the privilege of electing two-thirds of the number of their councillors on their agreeing to appoint a Government servant as chief officer of the executive. These privileges have since been extended to other municipalities, and in other cases extended franchise has been conferred. This policy of extending the powers of local bodies is safeguarded by strict measures when such powers are abused. Ahmedabad and Kaira municipalities have been superseded by special committees of management, and the same fate befel Rajapur during the year. Government continues to give considerable grants in aid of deserving projects. The aggregate income fell to £498,623, the decrease being almost entirely in Sind; and the aggregate expenditure rose to £644,862.

## District and Local Boards.

*(For further details see Statistical Abstract for British India, Table* 104.)

*General.*—In rural areas district and local boards perform the duties assigned to municipalities in urban areas. In each district there is a board subordinate to which are two or more local boards. The boards contain a varying proportion of elected members. Elected members form a large proportion of the boards in the United Provinces and the Central Provinces and Berar. On all boards the great majority of members are Indians. The total number of district boards in 1910–11 was 197, and of local boards 521. There are no boards in Burma. The following table shows the general constitution of the boards in each province, the figures in italics relating to local boards, the others to district boards:—

| Province. | Number of Boards. | Total Number of Members. | By Appointment. | | | By Employment. | | By Race. | |
|---|---|---|---|---|---|---|---|---|---|
| | | | Ex-officio. | Nominated. | Elected. | Officials. | Non-Officials. | Europeans. | Indians. |
| Madras | 23 | 696 | 117 | 265 | 314 | 268 | 428 | 129 | 567 |
| | *83** | *1,404* | *97* | *989* | *318* | *373* | *1,031* | *74* | *1,330* |
| †Bombay | 25 | 540 | 5 | 295 | 240 | 135 | 405 | 79 | 461 |
| | *212* | *3,103* | *20* | *1,698* | *1,385* | *632* | *2,471* | *156* | *2,947* |
| Bengal | 29 | 614 | 162 | 198 | 254 | 202 | 412 | 184 | 430 |
| | *78* | *963* | *78* | *625* | *260* | *124* | *839* | *91* | *872* |
| United Provinces | 48 | 892 | 3 | 272 | 617 | 246 | 646 | 102 | 790 |
| Punjab | 29 | 1,123 | 248 | 511 | 364 | 261 | 862 | 77 | 1,046 |
| | *17* | *313* | *17* | *108* | *188* | *17* | *296* | *2* | *311* |
| N.-W. Frontier Province | 5 | 218 | 51 | 167 | — | 51 | 167 | 25 | 193 |
| Central Provinces and Berar | 21 | 509 | 9 | 129 | 371 | 74 | 435 | 16 | 493 |
| | *78* | *1,311* | *33* | *345* | *933* | *139* | *1,172* | *6* | *1,305* |
| Eastern Bengal and Assam | 14 | 283 | 73 | 108 | 102 | 95 | 188 | 54 | 229 |
| | *52* | *684* | *104* | *270* | *310* | *138* | *546* | *147* | *537* |

* Besides 390 union committees or *panchayats* (with 3,502 members, of whom only 36 are Europeans) in Madras, 52 in Bengal, and 9 in Eastern Bengal and Assam.

† Figures for 1909–10.

The funds of district and local boards are largely derived from rates or cesses levied upon agricultural land over and above the land revenue. Up to 31st March 1908 the proceeds of these rates were included in the general revenues, and assignments from them were made to the boards. From April 1908 the accounts of the boards have been excluded from the general provincial accounts, and their funds

treated independently in the same way as municipal funds. The new system remedies certain practical inconveniences and gives the boards freedom of reappropriation. Government makes grants-in-aid to the funds of all boards amounting to about one-third of their income from rates or cesses levied on land. The chief object is to enable the boards to provide improved roads and other local needs. The boards have also other sources of income, such as cattle pound receipts (except in Madras), educational receipts, medical receipts, tolls from ferries and bridges, and contributions for specific purposes from the provincial funds. Their aggregate income (excluding debt items) in 1910–11 was about £3,250,000. The expenditure of the boards is chiefly for roads and bridges, hospitals, vaccination, conservancy, drainage, water supply, primary education, markets, and resthouses.

*Bengal.*—In Bengal, the attendance at the district, and still more at the local board, meetings, was not very satisfactory, though there was absence of friction in working. Little interest was shown in elections. Efforts are being made to encourage the growth of village organisation in the form of union committees in suitable localities, but lack of revenue has greatly handicapped their development. The ordinary income of the district boards was £443,862, including £252,269 from provincial rates, and £102,161 from civil works. The expenditure, excluding debt, was £453,777, of which £80,126 was spent on education and £298,644 on civil works, chiefly roads and bridges. Four light railways constructed under the guarantee of district boards continued to work satisfactorily, and some extensions were made. A fifth has recently been started.

*United Provinces.*—Interest in the work of the boards requires stimulating. On the suggestion of the Royal Commission on Decentralisation local committees of the boards have been formed in most sub-divisions. Their working presents considerable difficulties, but on the whole they are justifying their existence. The aggregate income amounted to £523,736, including provincial grants. The expenditure amounted to £498,134. There was a considerable decrease in both revenue and expenditure under education, owing to the district high schools having been taken over by Government. Apart from this, there was a falling off in the number of scholars, largely due to the prevalence of plague and to the weeding out of worthless schools. The expenditure on sanitation is inadequate, and there is insufficient interest shown in this subject. The provincial contributions have been revised.

*Punjab.*—A lack of interest is still shown in elections to district boards, and candidates are hard to find, but the working of the boards shows an improvement. The formation of sub-committees, both departmental and local, is on the increase. The ordinary income of the boards for 1910–11 was £345,800. The expenditure was £329,000, including £127,900 under civil works. The local rates have been raised in some districts, and it is proposed to raise it in others.

*North-West Frontier Province.*—There is no elective system in this province. The working of the district boards and the attendance of members were on the whole satisfactory. The aggregate income of the boards was £27,492 and their expenditure £24,347. Sub-committees are being appointed. Of the expenditure, about 22 per cent. was on education.

*Central Provinces and Berar.*—The interest taken in elections is small, but this is because local notables are re-elected without opposition. Any further extension of activities is hampered by the limited sources of income. The attendance of non-official members of the boards at the meetings is not good, but increased powers have now been given to the boards, and this may stimulate the interest taken in them. The ordinary income amounted to £158,553, excluding debt heads, while the expenditure was £145,867. The bulk of the expenditure was on civil works, including roads and schools and other buildings, and on education. Local fund engineers are to be appointed for the various divisions.

*Eastern Bengal and Assam.*—There was a slight falling off in the attendance of members of boards. In Eastern Bengal the improvement recorded last year in the representation of the Muhammadan community, which includes two-thirds of the population, was maintained. Of the income of the boards, £317,078, nearly one-half accrued from provincial rates, and nearly one-third from Government contributions for education, roads, &c. Their expenditure amounted to £319,360. There are nine union committees in the province.

*Madras.*—One-half of the members of the district boards are, as a rule, elected by the taluk boards. In 1909 the elective system was introduced for taluk boards, the elected members being generally limited to one-third of the maximum strength. In 46 cases during 1910–11 Government nominations had to be made owing to lack of candidates. There were in Madras 23 district boards, 82 taluk boards, and 390 village unions. The village union *panchayats* or councils have each not less than five members; they deal chiefly with sanitation, and the making and repair of roads, and in some cases they have the management of choultries, markets, and other local institutions entrusted to them by the taluk boards. On the whole the working of the local bodies was satisfactory. The income of the boards and unions, excluding debt heads and contributions from one district board to another, amounted to £897,760, and the expenditure to £814,015. The Tanjore and Kistna District Boards railways yielded net profits of 6·6 and 7·3 per cent. respectively on the capital outlay.

*Bombay.*—The average attendance of members at meetings of the boards did not alter greatly. There were numerous complaints of the apathy of non-official members. The income of all boards in 1910–11, excluding debt heads, was £454,649, a fall, as compared with 1909–10, due to a smaller yield from the one-anna cess. The total expenditure of the boards fell to £455,623, the increase under medical relief and education being more than counterbalanced by decreases under water supply and civil works. Of the total expenditure, 37 per cent. was for education, and 50 per cent. for roads, schoolhouses and other buildings, water supply, and other works. One local board was superseded.

*Burma.*—There are no local boards in Burma. Their place is taken by District Funds in Upper Burma and District Cess Funds in Lower Burma, which are administered by the Deputy Commissioners of the districts. These Funds numbered 36, and had an aggregate income of £233,000 and an expenditure of about £244,000 in 1909–10. Those in Lower Burma, known as "District Cess Funds," are the largest, as they include the proceeds of a 10 per cent. cess on the land revenue, and account for £198,000 of the expenditure, of which about £25,000 was on education and about £100,000 on public works.

## Port Trusts.

(*For further details see Statistical Abstract for British India, Table* 186.)

*General.*—The administration of the larger ports is placed by various Acts in the hands of Port Commissioners, who are charged with the provision of suitable dock accommodation and other services necessary to shipping. They have wide powers, but are more subject than municipal bodies to Government control. Members of these Port Trusts, which include both Europeans and Indians, are for the most part appointed by the Local Governments, and are largely representative of the local commercial communities. Except in Calcutta the elected members are fewer than the nominated members. Port trustees are empowered, subject to the control of the Government, to levy dues on shipping and goods, to charge fees for services rendered, to contract loans for port improvements, to maintain the harbour and its approaches, and to erect warehouses, jetties, harbour lights, and docks for the convenience of traders and shipping. The chief ports, in which is carried on by far the largest part of the trade of India, are alone dealt with here. There are smaller ports, especially in Madras and Burma, where sums are raised yearly for expenditure on improvements.

*Calcutta.*—After a temporary set-back in 1909–10 the receipts of the Port Trust rose by £66,000 to £855,100 in 1910–11, while the expenditure was £854,900, as against £800,000 in 1909–10. Greater debt charges (including £13,000 repayment of the first instalment of the Kidderpore Dock Loan) and the greater amount of traffic handled account for this increase. Receipts have almost doubled in the last 10 years owing to the enormous expansion in the trade of the port, especially trade in coal, jute, tea, and sugar, although considerable reductions have from time to time been made in the charges on goods. Lands and buildings are a growing source of income. The expenditure upon capital works amounted to £272,200. The more important works completed or in progress were the extension of docks and sidings, the construction of a "heavy lift" yard at the jetties, the re-modelling of the petroleum depôt,

and improvement of the inland wharves, including the construction of a landing stage at Outram Ghat. The ferry service, opened in October 1907, has met a great public need. In connection with the scheme for the extension of the Kidderpore Docks and the general improvement of the port, large areas of land have been acquired. The capital debt of the Trust on 31st March 1911, after allowing for £728,900 at the credit of sinking funds, was £5,622,500, of which about £2,022,400 represents Government loans, and the rest mainly debenture loans, which latter were increased during the year by £200,000. Against this total debt may be set assets amounting to £7,119,500.

*Bombay.*—The receipts of the Port Trust in 1910–11 (after deducting the rebate on certain charges which is temporarily in force) amounted to £546,000. This is an increase of £51,000, due to increased traffic. The expenditure was £482,000. There was a surplus of £62,435 on the year's working, appropriated to the Revenue Reserve Fund, which was thereby raised to £454,000. The new capital expenditure amounted to £581,700, including £361,900 spent on the new dock construction, and £154,300 on the Mazagon–Sewri reclamation. A 4 per cent. sterling loan of £500,000 was raised in London, and a 4 per cent. debenture loan of 56 lakhs in India. The debt of the Trust amounted at the end of the year to £6,878,000, of which £2,011,000 is due to Government, while the remainder consists of foreshore securities and debenture loans. The cost price of the properties vested in the Trust was £6,138,000, and various depreciation, reserve, and sinking funds amounted in the aggregate to £890,500. Works for the excavation of the new docks made rather slow progress owing to shortage of labour. The progress of the Mazagon–Sewri reclamation scheme was hampered by breakages in the dredgers.

*Karachi.*—The revenue receipts, owing to the heavy exports of grain and seeds, again constituted a record, advancing by 8 per cent. to £236,000, while the expenditure was £210,000. The activity in improvement works continued, and the east wharfage was completed. The policy of providing trade facilities at great cost has been justified by the increased advantage taken of them. The capital expenditure on improvements fell to £140,000. The total liabilities of the Trust at the end of the year stood at £1,244,600, of which £71,600 is due to Government.

*Rangoon.*—In 1910–11 the ordinary revenue amounted to £231,000, while the revenue expenditure was £230,500. The revenue shows a large increase chiefly owing to the raising of river dues. Though financial equilibrium has thus been achieved, the position is one which still requires watchfulness; and expenditure is being cut down as far as possible. A bill amending the Rangoon Port Act is under consideration, which prohibits competition with the Port Commissioners as public wharfingers, and grants them certain additional facilities. An Indian loan of 6 lakhs was raised with a view to the acceleration of the river training works, with which substantial progress was made. The capital expenditure of the year was £229,000, or less than half that of the previous year, and the total debt amounted to £1,634,000. Improvements were made in the system of wharf administration, and a new river channel was opened.

*Madras.*—The receipts of the Madras Port Trust rose from £70,000 in 1909–10 to £70,500 in 1910–11. The expenditure was about 76 per cent. of the revenue. The substitution of a northern for an eastern entrance and the building of the new north sheltering arm were completed, and various other improvements were made in the wharves, sidings, &c. The debt at the close of the year was £558,000.

# CHAPTER XVI.

## CONDITION OF THE PEOPLE.


VITAL STATISTICS.
PLAGUE.
SANITATION.
HOSPITALS, DISPENSARIES, AND ASYLUMS.
EMIGRATION AND MIGRATION
PRICES.
WAGES.
FAMINE OR SCARCITY.
GENERAL REMARKS.


### VITAL STATISTICS.

*(Detailed information on Vital Statistics, Sanitation, &c. is contained in the annual Report on Sanitary Measures in India, which is published as a Parliamentary Paper, and in the Statistical Abstract for British India, Tables* 103–4 *and* 198 *to* 199.)

*General Population. Registration.*—The statistics given below are based on the 1901 census figures. As the date of that census recedes, the birth and death rates calculated upon the census returns of that year necessarily become unduly high. Although improvement in registration is being steadily effected, there are still serious defects in some areas. The facts are nearly everywhere collected by an illiterate agency (usually by village watchmen in rural areas), and accurate figures, especially of the causes of death, are unobtainable. It is more difficult, especially in towns, to obtain information about births than about deaths. The actuarial reviews of the returns of the censuses of 1881 to 1901 show that the registered birth and death rates are understated, and, as registration improves, the registered rates must tend to approximate to the calculated rates. An increase in the registered death-rates cannot, therefore, be regarded as proving the impoverishment of the masses. The high Indian birth-rate is due, not to exceptional fertility, but to the large proportion of married women. The high infantile death-rate is partly due to the weakness of the children of immature and ignorant parents and faulty midwifery, but to some extent it is only apparent, being calculated on imperfect returns of births.

*Birth-rates and Death-rates.*—The population of the areas in which births and deaths were registered was 226,438,733 according to the census of 1901, and the number of births registered in 1910 was 8,947,991. The provincial rates are given in the table below. The calculated birth-rate in 1910 was 39·52 per mille, compared

| Province. | Birth-rates. | | Death-rates. | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | 1909. | | | 1910. | | |
| | 1909. | 1910. | Rural. | Urban. | Total. | Rural. | Urban. | Total. |
| Bengal | 37·8 | 39·7 | 30·7 | 28·7 | 30·6 | 33·4 | 28·0 | 33·1 |
| Eastern Bengal and Assam | 40·5 | 38·0 | 34·1 | 23·7 | 33·9 | 33·9 | 23·2 | 33·7 |
| United Provinces | 33·3 | 41·0 | 37·3 | 37·6 | 37·3 | 38·5 | 40·2 | 38·7 |
| Punjab | 35·1 | 42·7 | 30·5 | 34·6 | 30·9 | 33·2 | 34·4 | 33·3 |
| North-West Frontier Province | 34·7 | 38·1 | 26·6 | 25·1 | 26·6 | 27·0 | 25·7 | 26·8 |
| Central Provinces and Berar | 51·6 | 55·4 | 32·4 | 39·3 | 33·1 | 45·0 | 43·6 | 44·9 |
| Madras | 33·1 | 33·6 | 21·2 | 26·4 | 21·8 | 24·1 | 28·9 | 24·7 |
| Coorg | 27·6 | 25·7 | 26·5 | 46·2 | 28·2 | 36·5 | 51·8 | 37·8 |
| Bombay | 35·6 | 37·3 | 25·8 | 34·8 | 27·4 | 29·0 | 35·7 | 30·3 |
| Burma { Lower | 35·3 | 35·5 | 25·9 | 40·0 | 27·7 | 25·4 | 38·0 | 27·0 |
| Burma { Upper | 37·1 | 37·1 | 33·2 | 47·6 | 34·8 | 29·2 | 39·1 | 30·3 |
| Ajmere-Merwara | 37·8 | 42·7 | 43·0 | 72·3 | 50·1 | 51·5 | 46·2 | 50·1 |

with 36·65 in 1909 and a quinquennial mean of 37·61. In the Central Provinces the birth-rate per mille of population was again exceptionally high. In all the major provinces, except Eastern Bengal and Assam, the birth-rate was higher in 1910 than in 1909; the increases in the United Provinces and the Punjab was particularly striking, and represents the recovery of the population from the malaria epidemic of 1908. In all the major provinces the birth-rates exceeded the death-rates, the most

considerable excesses being 10·5 per mille in the Central Provinces, and 9·4 in the Punjab. The mean percentage of male to female births was 106·93 per mille, ranging from 124·4 in the North-West Frontier Province to 104·7 in Madras.

The number of deaths registered during 1910 was 7,518,034, compared with 6,998,044 in 1909, while the death-rate was 33·20 per thousand, or 2·29 higher than in 1909, and 2·2 below the quinquennial mean. The death-rate showed a sharp increase in the Central Provinces, and slighter increases in all the other major provinces except Burma and Eastern Bengal and Assam. The lowest death-rate, 24·7, was again in Madras. In almost all provinces the male death-rates exceeded the female.

The greatest mortality occurred in December, while the lowest was June. Infantile mortality was highest in the Central Provinces, Upper Burma, Bombay, and the United Provinces. Inquiries in all these provinces tend to show that the chief causes of infantile mortality are the lack of competent midwives and insanitary conditions.

The following table gives the ratio of deaths per mille in cities of British India whose population exceeded 150,000 in 1911 :—

| City. | 1909. | 1910. | City. | 1909. | 1910. | City. | 1909. | 1910. |
|---|---|---|---|---|---|---|---|---|
| Calcutta - - | 34·1 | 28·0 | Benares* - | 50·8 | 57·7 | Allahabad* - | 17·1 | 20·2 |
| Bombay - - | 36·0 | 36·0 | Delhi - - | 42·2 | 43·2 | Amritsar - | 39·1 | 31·4 |
| Madras - - | 38·3 | 40·3 | Lahore - - | 34·7 | 32·7 | Poona* - - | 33·7 | 39·5 |
| Lucknow* - | 49·4 | 41·2 | Cawnpore* - | 54·8 | 51·7 | Karachi - - | 46·0 | 44·5 |
| Rangoon - | 39·6 | 36·8 | Agra* - - | 26·3 | 30·0 | | | |
| Howrah - | 37·4 | 29·4 | Ahmedabad* - | 56·2 | 47·3 | | | |

* Excluding cantonment.

*Chief Diseases.*—There are three main classes of fatal disease: specific fevers, diseases affecting the abdominal organs, and lung diseases. Intestinal and skin parasites, ulcers and other indications of scurvy, widely prevail. Much of the sickness and mortality is due to deficient powers of resistance and to insanitary habits and surroundings. The table below shows the number of deaths, and the death-rates per 1,000 from each of the principal diseases recorded, in British

| Years. | Cholera. | Small-pox. | Fevers. | Dysentery and Diarrhœa. | Plague. | Respiratory Diseases. | All causes. |
|---|---|---|---|---|---|---|---|
| 1908 - - - - | 591,725 | 170,694 | 5,424,372 | 285,921 | 113,888 | 227,817 | 8,653,007 |
| | 2·61 | 0·75 | 23·96 | 1·26 | 0·50 | 1·01 | 38·21 |
| 1909 - - - - | 239,231 | 101,152 | 4,487,492 | 216,956 | 145,333 | 203,363 | 6,998,044 |
| | 1·05 | 0·45 | 19·82 | 0·96 | 0·64 | 0·90 | 30·91 |
| 1910 - - - - | 430,451 | 51,315 | 4,341,392 | 267,672 | 413,355 | 234,308 | 7,518,034 |
| | 1·90 | 0·23 | 19·17 | 1·18 | 1·83 | 1·03 | 33·20 |

India, during the three years from 1908 to 1910. With regard to special diseases, no province escaped the visitation of cholera, which was chiefly prevalent in Bengal and Eastern Bengal and Assam and the United Provinces. Small-pox reached the lowest point of the decade. Plague, the mortality from which showed a recrudescence, forms the subject of a separate section. When reference is made to fever in India, malarial fever is generally understood, but many causes of death and many diseases much more fatal than malarial fever are included under the heading. The fever death-rates, as usual, varied greatly, ranging from 27·07 in the United Provinces to 8·7 in Madras. As a result of the Simla Malaria Conference of 1909 a permanent committee was set up with a central bureau at Kasauli and a laboratory at Amritsar, and provincial committees have now been formed in the different provinces to carry out the policy recommended at the Conference. At Amritsar lectures are given to medical officers from the different provinces; a periodical is published, and pamphlets have been issued. The provincial committees during 1910 have been at work on the lines recommended by the Conference. They have investigated the local distribution of the disease and other problems, and have carried on an active campaign of quinine distribution and the extermination of mosquitoes by drainage, petrolage, &c. Special investigations have been carried out at Saharanpur, Nagina, Bombay (where it is now hoped that the drainage of certain mosquito breeding places may stamp out the disease), Amritsar, Delhi, and elsewhere.

The second Malarial Conference met in November 1911 at Bombay. Among other resolutions it was resolved that no one measure can be suitable for all local conditions. Recent investigations tend to show that anti-mosquito measures may not be as costly as was at one time feared. The importance of educating the people to co-operate in an anti-malaria policy was dwelt on.

*Vaccination.*—The total number of vaccinations performed among the civil population during 1910–11 was 9,084,194, being a slight decrease on the previous year's work. Of primary vaccinations 96·24 per cent., and of re-vaccinations 70·4 per cent., were successful, about 35·06 per mille of the population being successfully vaccinated. The number of infants successfully vaccinated was 46·44 per cent. of the number born.

## Plague.

The present epidemic of plague in India first broke out at Bombay in August 1896, and, as the marginal table shows, it has been responsible for a heavy rate of mortality since that date. In 1907 the deaths from plague attained the highest total yet recorded, viz., 1,315,892, for India as a whole, the number in British India alone being 1,166,223, or 5·16 per mille. In 1908 the mortality declined enormously, falling to 156,480, the lowest total since 1900. In 1909 there was once more a relatively low mortality, namely, 178,808 deaths, or fewer than in any year since 1900, excepting 1908. In 1910 and 1911 there was a severe recrudescence, especially in Bengal, the United Provinces, and the Punjab. In the latter part of 1911 the virulence of the epidemic abated, and there is reason to hope that 1912 will see a much smaller mortality from the disease.

| | |
|---|---|
| 1896–97 | 57,543 |
| 1898 - | 116,285 |
| 1899 - | 139,009 |
| 1900 - | 92,807 |
| 1901 - | 282,027 |
| 1902 - | 576,365 |
| 1903 - | 883,076 |
| 1904 - | 1,143,993 |
| 1905 - | 1,069,140 |
| 1906 - | 356,721 |
| 1907 - | 1,315,892 |
| 1908 - | 156,480 |
| 1909 - | 178,808 |
| 1910 - | 512,605 |
| 1911 - | 842,086* |

* Preliminary figures.

Plague is so local in its visitations that all general and unanalysed statistics are likely to prove misleading. Many parts of India have been almost entirely free from its ravages, and in the greater part of the country the outbreaks cannot be described as having been severe or disastrous. On the other hand, general statistics tend to conceal the severity of the distress caused by the disease in particular districts. In some parts of the Punjab and the United Provinces the mortality has been so severe as to disorganise the labour market and to affect the level of wages.

The reasons for this uneven incidence are at present under investigation. The mortality in Eastern Bengal and Assam has been at no time appreciable, largely, it is believed, because the habits of the people and the structure of their houses are unfavourable to the breeding of rats, while in the Madras Presidency and in Burma the epidemic has never reached serious dimensions. How far the comparative immunity of Madras is due to a large expenditure on plague-measures, and how far to natural causes, is undecided.

The efforts of Government to discover and apply the most effective methods of remedial action have not been relaxed. The Advisory Committee on Plague Investigation in England and the Plague Commission in India, whose constitution has been described in former issues of this Report, have continued their investigations, which have already led to most important results. The main facts in regard to the mode of propagation of an epidemic and the life history of the plague bacillus have been ascertained, and rational methods of attack have thus been made possible. A popular summary of the principal conclusions arrived at was given in "The Etiology and Epidemiology of Plague" (price 5*d.*), published early in 1908. It is now generally agreed: (1) That epidemic bubonic plague in man is directly dependent on epidemic plague in rats; (2) that the vehicle of contagion between rat and rat and between rat and man is the plague-infected rat-flea; (3) that bubonic plague is not directly infectious from man to man; and (4) that the life of the plague bacillus outside the bodies of men, animals, or fleas is of short duration. In large towns plague may persist through the year, but in villages such persistence is exceptional, and the recurrence of an epidemic is probably due to fresh infection.

In the light of the knowledge and experience now acquired it is possible to deal satisfactorily with the disease when effective control can be established over the sanitary conditions; and in the case of the native army and in limited areas such as jails there has been remarkable success. But attempts to establish such control over large areas would involve too great an interference with the habits, prejudices, and sentiments of the people, and the application of measures of proved utility must depend upon the particular circumstances of each locality and upon the character of

its inhabitants. In the face of great practical obstacles, three principal measures for combating plague are now adopted :—

(1) The temporary evacuation of quarters in which plague is prevalent. This has proved to be the most effective way of removing man from contact with infected rat-fleas. Government is ready to supply money and material to provide temporary dwellings and to alleviate the discomfort and distress which must accompany evacuation of quarters, a matter, of course, in which no pressure can be exerted, and in regard to which the wishes and even the prejudices of the people must be consulted.

(2) Inoculation with the prophylactic fluid. The efficacy of this remedy on the occasion of an outbreak has been placed beyond doubt; it is freely resorted to, and encounters little popular prejudice, when the presence of plague is felt; but as a general or permanent remedy it is obviously of limited utility.

(3) The systematic destruction of rats, the diminution of the food supply to which they have access, and, in the course of time, such improvement in the structure of houses as shall render them reasonably rat-proof.

## Sanitation.

*General.*—The first All-India Sanitary Conference was held in Bombay in November 1911. Proposals for reorganising and developing the Sanitary Department by appointing medical officers of health and sanitary inspectors in the larger municipalities are under consideration. The following paragraphs give some account of the chief sanitary works undertaken in the various provinces during 1910.

*Bengal.*—In Calcutta steady progress was made with the great projects of water-supply and drainage, which are of vital importance to the health of the citizens. The water-supply is being doubled and the whole system of distribution reconstructed, so that the legal requirement of a continuous supply of filtered water at a pressure of 40 feet may be complied with. The principal feature of the scheme is a great elevated reservoir at Tallah, which was completed in January 1911. This reservoir contains nine million gallons; all the water will be pumped into it and distributed by gravitation through a large steel main. The pumps are capable of pumping 40 million gallons a day. Tolly's Nullah Sewage Syphon, a difficult piece of work, was opened in July 1910, and is working satisfactorily, while over half the drainage scheme in the Fringe Area, estimated to cost £200,000, has also been carried out. The death-rate of Calcutta was the lowest for 20 years. The Act constituting the Calcutta Improvement Trust was passed in August 1911. (*See* Chapter XV., Municipalities.)

The 130 municipalities in Bengal (excluding Calcutta) spent 40 per cent. of their income on sanitation. The greater part of a grant of £30,000 by the Government of India was expended on drainage. Much attention was paid to the working of septic tanks, especially those installed by mills on the banks of the Hooghly, and they are now acting with ease and efficiency. Schemes of water-supply were in hand at Puri, Gaya, Monghyr, and elsewhere. Drainage schemes were in progress in Howrah, Bhatpura, Garulia, and other municipalities. Details are in preparation for a further portion of the comprehensive Howrah drainage scheme. The work of improving the sanitary systems of villages was actively carried on.

*United Provinces.*—In the United Provinces a large proportion of their income was again expended by municipalities on conservancy, water-supply, and drainage. Sanitation made a considerable advance, especially in the larger municipalities. Important improvements in water-supply are under consideration or in progress at Benares, Cawnpore, Mirzapur, and elsewhere; progress was made with the drainage works at Lucknow, Moradabad, Jaunpur, and Budaun. The municipalities are eager to improve their drainage systems, but are hampered by lack of funds.

*Punjab.*—A sum of £10,000 was distributed to local bodies as a grant-in-aid for sanitary works. A reservoir was completed at Lahore, the Delhi and Dharmsala waterworks were extended, and progress was made with the Amritsar sewage disposal works and the Delhi suburban drainage scheme. In rural areas sanitation makes little advance, although the District Boards offer rewards for village sanitation.

*North-West Frontier Province.*—There was no sanitary work undertaken of outstanding magnitude, but there was a large expenditure on small improvements. The sanitation of Peshawar city continues to be a subject of controversy—the question of incineration being much debated.

*Burma.*—In Rangoon the urgently needed pumping station at Yegu was completed, but the bursting of a pipe delayed its commencing work. Reclamation work was carried steadily forward, the total expenditure being £100,000.

The Burma municipalities (exclusive of Rangoon) spent less than 30 per cent. of their income on sanitation, the cost of plague measures having left only a small amount available. Sanitation in Burma is in a very backward condition. Drainage improvement was undertaken at Henzada, Bassein, and Mandalay. Water-supply schemes were under consideration for Mandalay, Pegu, and other towns. The sinking of tube and Abyssinian wells, the improvement of bazaars and houses, and the protection of the drainage area of village tanks from contamination were the other chief activities of the year.

*Central Provinces and Berar.*—Out of the special Imperial grant of £13,333, £5,000 was allotted to the Nagpur municipality for its drainage scheme. Other large drainage schemes are on foot at Wardha, Akola, Jubbulpore, and elsewhere, and water-supply schemes at Gorewara, Chiklada, and Harda. A separate sanitary commissioner has been appointed, and the appointment of a sanitary engineer has been sanctioned. The scheme for improving the municipal sanitary staff proceeds slowly, owing to the financial weakness of the municipalities. The application of the Village Sanitation Act to Berar has been sanctioned.

*Eastern Bengal and Assam.*—The expenditure on sanitation amounted to about 54 per cent. of the income of the municipalities. Schemes for improving the sewerage and drainage of Dacca were under consideration, while the remodelling of the waterworks was completed. In most of the district headquarter towns there are at present important sanitary schemes in progress. Conservancy operations throughout the province are hampered by a shortage of sweepers. A grant of £5,333 was allotted for improving water-supplies in rural areas.

*Madras.*—In Madras city the construction of the new water-supply and drainage works inaugurated in 1907 proceeded steadily. A new water distribution scheme was completed during the year, and a general scheme for the drainage of the city is under preparation.

A special grant of £24,800 was made from provincial funds to local authorities for sanitary works. Sanitary progress in mofussil municipalities is slow, owing in some cases to want of money, in others to lack of interest and capacity for management on the part of the councils. No addition was made to the 18 municipalities provided with piped water-supply during the year, but waterworks were under construction at Salem, Vizianagram, and elsewhere. Comprehensive drainage schemes are contemplated in several of the larger municipalities, including a £138,000 scheme for Madura. The Sanitary Board supervised many sanitary works undertaken by local bodies.

*Bombay.*—The water-supply and drainage works in Bombay city were extended. Large areas of land (690,000 sq. yds.) were acquired by the Bombay Improvement Trust. Several improvement schemes for transforming insanitary areas were advanced, and chawls capable of housing nearly 14,900 people have been provided or are under construction.

Under the stimulus of liberal grants-in-aid, amounting to about £37,000, many improvements in water-supply and drainage are being carried out. At Hubli, Hyderabad, Pandharpur, and elsewhere extensive water-supply schemes were in progress. A project estimated to cost £116,000 has been commenced at Poona. Plans for a water-supply scheme for Aden are being prepared.

Vessels for the Red Sea pilgrim traffic were cleansed and freed from rats under the direction of the Bombay Port Health Officer. The out-going pilgrims, who numbered 18,014, were medically inspected and their clothing and bedding thoroughly disinfected before embarkation.

## Hospitals, Dispensaries, Asylums, &c.

*Hospitals and Dispensaries.*—The civil hospitals and dispensaries in India, which numbered 2,685, against 2,652 in 1909, treated 456,755 indoor and 28,030,365 outdoor patients during the year. The great bulk of their income is derived from government and local and municipal funds, and their total expenditure in 1910 was £784,806. In addition there is a large number of special police and other medical institutions, as well as many private institutions which are not State-aided. These numbered 1,485, and provided treatment for 137,409 indoor and 6,631,253 outdoor patients. The United Provinces had the largest number of indoor patients, followed

by Bengal and Madras. Madras had by far the largest number of outdoor patients. The principal diseases treated are malarial fevers, diseases of the digestive system ulcers and other skin diseases, diseases of the eye, diseases of the respiratory system and diseases of the ear. About 1,193,000 surgical operations (including dental operations) were performed.

During 1910 new hospitals have been opened, or old institutions enlarged, in Calcutta, Lucknow (where a medical college is being established), Delhi, Rangoon, and elsewhere. The success of the new general hospital at Rangoon in attracting women and children is a satisfactory feature. In Lahore the Medical College and the attached hospitals are to be enlarged and improved as a memorial to the late King Edward. The nursing system in the big Calcutta hospitals has been reorganised. The system of payment for treatment when the patient can afford it has been adopted from Bombay into the Punjab and Central Provinces. In most provinces the pay of the subordinate medical service has been, or is being, raised. Increasing attention is being paid, both by provincial and local authorities, to the training of female assistants and midwives in Bombay, Burma, the Punjab, and Eastern Bengal. In the United Provinces, in consequence of the inquiry into infant mortality at Cawnpore, a scheme has been prepared by the Provincial Committee of the Dufferin Fund for this purpose.

*Pasteur Institutes.*—There are Pasteur Institutes for anti-rabic treatment at Kasauli (Punjab) and Coonoor (Madras). The number of patients treated in the former in 1910 was 2,073 as against 1,937 in 1909, the corresponding figures for Coonoor being 827 as against 658.

*Lunatic Asylums.*—The treatment of lunatics at asylums prevails on only a small scale in India, where insanity is less prevalent than in European countries. The census of 1911 showed an increase of nearly 22 per cent. in the number of insane since 1901. The number admitted into asylums in 1910 was 1,517, the average for the five years to 1910 being 1,563. The total asylum population of the year was 7,483. The causes of insanity are not very accurately classified, but the most important alleged cause is the use of hemp drugs. The expenditure on the asylums amounted to £69,800, most of which was borne by the State.

*Leper Asylums.*—There are many leper asylums, among which may be mentioned the Madras Government Leper Asylum, the Matunga Leper Home, Bombay, the Trivandrum State Leper Asylum, and the Calcutta Leper Asylum. There are also many asylums or homes, frequently under some sort of Government supervision, including about 50 asylums of the Mission to Lepers. The census of 1911 showed an increase in the number of lepers to 109,094, compared with 97,340 in 1901, and the proportion works out to 35 lepers per 100,000 of the population.

## Emigration and Migration.

(*For further details see Statistical Abstract for British India, Tables* 196 *and* 197.)

### *Emigration.*

Emigration from India, so far as it is brought under the cognizance of Government, is mainly regulated by Act XVII. of 1908 and the Rules issued under its provisions. Emigration to Ceylon, to the Straits Settlements, and for employment under Government only in British East and Central Africa is, however, excepted from the restrictions of the Act. By this Act, natives of India are permitted to emigrate, under contract to labour for hire, only to such countries as have satisfied the Government of India that sufficient provision is made in them for the protection of Indian immigrants; and a similar protection is extended to natives of India engaged to emigrate, individually or in small parties, to work as artisans, for the purposes of an entertainment or exhibition, or for service in restaurants or other places of public resort. Emigration, otherwise than under contract to labour or work in one of the above capacities, is not controlled by legislation.

An amending Act was passed in July 1910 empowering the Government of India to prohibit emigration to any country, not only on certain specified grounds as under the 1908 Act, but whenever it is considered that there is sufficient reason for taking such action. Emigration to Natal was prohibited under this Act after the close of the year under review.

*Calcutta.*—There were five emigration agencies at work during the year at Calcutta, all representing British colonies. The total number of labourers requisitioned rose from 9,347 in 1909 to 12,153 in 1910. The number supplied during the year was

8,340. There was no alteration in the terms offered to intending emigrants. The number of recruiting licences granted was 658, as compared with 571 in 1909; 22 licences were cancelled. The total number of emigrants registered during the year was 12,968, giving an average of 19 emigrants per recruiter, as against 22 in the preceding year. This number was contributed by the different provinces in the following proportions:—United Provinces, 81 per cent.; Punjab, 7½ per cent.; Bengal, 6 per cent.; Bihar, 5 per cent.; Central Provinces and Ajmere, ½ per cent.

The number of emigrants admitted to the Calcutta depôts was 11,042, or 655 more than in 1909. Of the remainder, 1,473 were rejected subsequently to registration as unfit to emigrate. The percentage of deaths in the depôts was 0·67, as compared with 0·71 in the preceding year, and the percentage of rejections increased from 11·68 to 11·80. The percentage of desertions increased from 0·63 to 1·01. After deducting casualties of all kinds, there remained 8,963 emigrants available for despatch to the colonies, of whom 8,441 actually embarked during the year, as against 8,686 in the previous year. They were distributed as follows:—Fiji, 2,256; Natal, 2,030; Trinidad, 2,006; Demerara, 1,616; Mauritius, 533. The total number shipped included 2,209 women and 475 returned emigrants who re-emigrated. The death-rate on the ships carrying emigrants was 0·54 per cent., chiefly due to cerebro-spinal meningitis and respiratory diseases.

The number of emigrants who returned from the several colonies was 2,727, and their ascertained aggregate savings amounted to nearly £28,000. The average savings per head varied from about £56 in Surinam to about £7 in Natal, no figures being available for Mauritius; but 1,046 adults—over half of the total number—brought back no savings.

There was a slight increase in the average amount remitted by resident immigrants in respect of all the colonies save Fiji. The average was again highest in the case of Natal (nearly 13*s.*), and Fiji was again the only other colony where the average remittance exceeded one rupee.

*Madras.*—The total number of emigrants under the Emigration Act regulations was 5,979, as against 2,735 in 1909. Three thousand nine hundred and sixteen went to Natal, and the remainder to Fiji and Trinidad. Two thousand three hundred and sixty-nine emigrants returned from Natal bringing about £21,000 in savings.

As regards non-regulated emigration, the number of emigrants to the Straits Settlements increased from 48,719 to 85,015. The number of passengers on vessels bound for Ceylon likewise increased. In each case the demand for labour on the rubber estates was the cause. Passengers to Burma showed a slight increase, due to low steamer fares and high wages in Burma.

*Bombay.*—The number of emigrants shipped from the port of Bombay rose from 78 to 232. Of these, 86 were destined as artisans for British East Africa and 108 were engaged by the Anglo-Persian Oil Company for service in Persia. From Karachi 41 emigrants left for service on the Uganda railway, and 230 for Mohammerah. About 1,000 other emigrants, mostly from Surat, left for African and Asiatic ports. The number of emigrants who returned to Bombay was 118.

### *Migration.*

*Assam.*—The total labour population at the end of March 1911 was 763,239, an increase of 4,920 on the figures for the preceding year. There was a further decline in the number of "Act" labourers, who now number only 20,868. The number of immigrants was 43,657, as against 39,332 in 1909–10. Of the 34,292 adults who immigrated, 28,482 were free labourers. The largest number came from the plains districts of the United Provinces and Bengal. The improvement in the health of coolies during transit was maintained, and the number of deaths fell to 23. The number of proved cases of fraudulent recruitment was 42 The number of contracts made in recruiting districts rose from 5,268 to 5,809, the number of coolies recruited by *sardars* being 616. The rate of wages slightly fell. The rate of mortality among adults fell to 32·2. Five complaints of ill-treatment were lodged by coolies against employers, of which three were dismissed. Desertions rose from 2,067 to 2,137. The relations between planters and villagers continued to be satisfactory. It is hoped that legislation tending towards the ultimate adoption of a free labour system will shortly be brought forward.

*Burma.*—During 1910, 331,170 immigrants and 298,613 emigrants passed through the ports of Burma.

*Madras.*—The number of passengers, excluding indentured emigrants, who arrived at the several ports of the Madras Presidency during the year was 303,628, against 300,712 in 1909.

## PRICES.

(*For further details see Statistical Abstract for British India, Tables* 209 *to* 215.)

*General.*—The rise in the prices of commodities in India during recent years has been the subject of much discussion. The marginal table of prices during the 12 years to 1910 has been compiled from Government returns showing the index numbers of the prices of: (*a*) 11 articles imported; (*b*) 28 articles consumed in India or exported; (*c*) food-grains. The prices under (*a*) and (*b*) are wholesale, and under (*c*) retail. The index number of each year represents a simple average of the separate price ratios of the selected articles. In showing the variations the prices of 1873 are taken as 100.

| Year. | Index Number for Articles imported. | Index Number for Articles consumed or exported. | Index Number for Food-grains (Retail Prices). |
|---|---|---|---|
| 1873 - - | 100 | 100 | 100 |
| 1899 - - | 87 | 100 | 137 |
| 1900 - - | 96 | 124 | 192 |
| 1901 - - | 96 | 116 | 157 |
| 1902 - - | 86 | 113 | 141 |
| 1903 - - | 88 | 103 | 126 |
| 1904 - - | 93 | 104 | 117 |
| 1905 - - | 96 | 116 | 147 |
| 1906 - - | 105 | 139 | 179 |
| 1907 - - | 116 | 145 | 180 |
| 1908 - - | 106 | 151 | 231 |
| 1909 - - | 99 | 133 | 195 |
| 1910 - - | 109 | 127 | 168 |

After 1900, a year of severe famine, the tendency of prices for articles of Indian produce was, for several years, downward. The prices of imported articles steadily rose from 1902 to 1907, while a sharp and rapid rise in the prices of articles of Indian produce, especially food-grains, began in 1905. This rise was accentuated in 1907 and 1908 by the widespread failure of crops in Northern India. In 1909 there was a general decline in prices, which was continued in 1910. Landholders whose land revenue assessments have been settled for long periods, and cultivators who hold land at fixed rentals, reap an advantage from high prices. It is probable that the trading classes benefited by the rise in prices, and there is reason to believe that owing to the enhanced demand for labour, due to industrial activity, the advance in wages has kept pace with the rise in prices in great industrial centres. But where wage rates are more or less customary, or where incomes are more or less fixed, as in the case of pensioners, public and private employees, and the professional classes, the increased cost of living is a serious matter. Extra allowances, known as grain compensation allowances, have been made on a large scale to Government servants to cover the cost of dearer food.

The following paragraphs relating to prices are based on statements contained in agricultural and other reports.

*Bengal.*—Prices, which had attained an unusually high level in 1906–7 and 1907–8, began to fall in 1908–9, and, owing to a favourable harvest, there was a considerable and universal drop in the price of food-grains in 1909–10 and again in 1910–11.

*United Provinces.*—Prices, which had been generally at a high level since 1905, and had been exceptionally high in 1907–8 owing to famine, declined substantially with the improvement in agricultural conditions in 1908–9, and the improvement and the decline have been continuous. There was a marked fall in the prices of food-grains, especially wheat, gram, and dal, though prices did not go back to the rates considered normal prior to 1905.

*Punjab.*—With good harvests in 1909–10 and 1910–11, the prices of the principal food-grains have gradually fallen. Except cotton, wheat, and rape-seed, all harvest prices were considerably lower than in 1909–10. Cotton prices again rose very considerably. Grain stocks are large, and the people are holding them up in anticipation of better prices.

*North-West Frontier Province.*—The prices of food-grains were generally easier than in 1909–10, except in the Hazara district. This decline was the natural result of good harvests. The price of cotton was higher than ever owing to the world-shortage.

*Central Provinces and Berar.*—The damage done to kharif crops by rain was compensated for by a good rabi crop. Prices were lower, except cotton and oilseeds, which were affected by external demand.

*Burma.*—Paddy prices were abnormally high owing to diminished outturn throughout the province, and consequently the stock held up was less than in 1909–10. Prices of cotton, ground-nut, sesamum, and millet also rose.

*Eastern Bengal and Assam.*—The fall in prices of food-grains has been continuous since 1907–8. The exports of rice have exceeded the imports since 1909. Jute rose again after the fall of the last three years.

*Madras.*—The prices of food-grains were easier in most, but not all districts. The general level of prices was, however, still high. Net imports of food-grains decreased.

*Bombay.*—Owing to the excellent season the prices of food-grains (rice, millet, wheat, and gram) slackened in almost every district, but were still above the normal. The keen demand for cotton, combined with the damage to the Bombay crop, sent prices up from 9 to 14 per cent. over the very high prices of the previous year.

## Wages.

(*For further details see Statistical Abstract for British India, Tables* 206 *to* 208.)

*Bengal.*—The high level of wages reached in 1907–8 and 1908–9 was generally maintained during 1909–10, money wages being kept up in spite of lower food prices. This is due partly to the growing demand for skilled labour in towns and in mills, collieries, and brickfields, and on railways, partly to the high prices of food-grains, and partly to the general rise in the standard of comfort. The Bengal Government has arranged for a quinquennial wage census.

*United Provinces.*—The year was such as to afford full occupation to labourers. Wages show no sign of returning to the level customary a few years ago, but are still tending to rise, although the renewed epidemic of plague, by disorganising the supply of labour, tended to check agricultural enterprise. The rise of wages is all to the good for the labourer, and the low-caste small cultivator who works the land with his family and occasional help has little ground for complaint, but high-caste cultivators feel the change in cases where they cannot command labour at the old customary rates. Landholders who cultivate any considerable portion of their land feel the change acutely, and are taking much interest in all kinds of labour-saving machinery. A wage census was taken in 1911.

*Punjab.*—The demand for labour is still in excess of the supply, and wages continue to increase. In December 1909 a wages survey was carried out in 4,728 Punjab villages. Purely cash rates obtain in 49 per cent. of these, cash rates with supplementary allowances in 48 per cent., and purely grain rates in 3 per cent. Wages of unskilled agricultural labourers have generally doubled in the last 20 years, the advance being specially rapid in the last five years. Actual rates vary much, and a few examples only can be given. Wages are highest, 6 to 8 annas per day, in the Central Punjab and in the new canal colonies, where development has been most marked and plague most severe. Hissar and the submontane districts of Hoshiarpur, Gurdaspur, and Sialkot return 5 annas, but later reports give 10 annas a day as the minimum wage for unskilled labour in Hissar and Lyallpur during 1910–11. In other districts the rate is 4 annas, except in Rohtak (3½ annas), Delhi and Kangra (3 annas), and Gurgaon (2 to 3 annas). The Delhi district has not been so much affected as other districts by plague or by the opening up of irrigated areas. The wages of village artisans and ploughmen have also practically doubled in 20 years. The causes of the great increase in wages are the marked rise in the prices of food-grains, heavy mortality from plague, and the greater demand for labour owing to extensions of cultivation, irrigation works, railways, and buildings, and the starting of factory industries. Since about 1900 labourers have been in a position to dictate terms to employers. Customary rates have given place to competition wages, and labourers move freely in search of more remunerative employment. The shortage of adult labour in factories is serious, though the wages earned are higher than those of agricultural labourers, as, indeed, are urban wages generally.

*North-West Frontier Province.*—There is no separate class of agricultural labourers in the province. The demand for field-labour remained the same. There is a great demand for unskilled labour for canal and other works and for military and other non-agricultural purposes. Where such works are in process, wages vary from 4 to 8 annas.

*Central Provinces and Berar.*—Wages continued very high during 1910–11, and the prevalence of plague caused a shortage of labour which more than counterbalanced the decreased activity of the cotton mills. As usual, there were frequent complaints of a shortage in the supply of labour.

*Burma.*—The poor harvest in Lower Burma did not adversely affect the agricultural labourer, who is paid a stipulated quantity of rice, but in Upper Burma there was a change for the worse. Rubber plantations offer increasing employment at good wages. The supply of labour is short in many districts. Factory coolies get from Rs. 12 to 15 a month.

*Eastern Bengal and Assam.*—The year was favourable to agriculturists, and the average wages of unskilled agricultural labourers remained at the high level of the previous year, while food prices were lower. An inquiry into the prevailing rates of wages is in progress.

*Madras.*—Wages are slowly rising to counteract the attractions of the rubber-planting districts in India and elsewhere. Owing to the high price of produce many small cultivators, who ordinarily would have had to supplement their income by working as coolies, were able to make a living off their land.

*Bombay.*—The demand for labour again exceeded the supply, and there was an upward tendency of wages for unskilled labour despite the falling prices. There was an almost general complaint of lack of labourers. The cotton industry continued depressed. The rise in wages for skilled labour was less noticeable than for unskilled. No labour troubles of importance occurred. The commercial and industrial expansion of cities like Bombay, Karachi, and Ahmedabad, the growth of mining, and the construction of public works, offer a wider field every year for skilled and unskilled labour. Everywhere the labouring class has improved its position and is becoming more independent.

## Famine or Scarcity.

In two districts of Burma partial failures of crops caused a scarcity which, however, was sufficiently met by local measures without resort to the Famine Code.

## General Remarks.

The following general notes on the condition of the people during the year are based on observations recorded by the Provincial Governments.

*Bengal.*—The comparative poorness of the harvest of 1908–9 (especially in Behar), succeeding two years of bad crops, made that year one of hardship for all classes. In the early part of 1909–10 distress continued in some districts, but with good rainfall normal conditions of agriculture returned, prices of food-grains fell, and labourers found full employment. The condition of agriculturists improved considerably through the good harvests. The standard of living is rising among the labouring classes as shown by their increased demand for petty luxuries. The agricultural population are beginning to clear themselves of debt.

*United Provinces.*—The year brought a further marked improvement in general prosperity, with falling prices and rising wages. The great malaria epidemic has come to an end and the mortality is normal, despite an epidemic of plague and local outbreaks of cholera.

*Punjab.*—Agricultural conditions were favourable, though not quite so good as in 1909–10. There has been an unquestionable advance of late years in the standard of comfort and in the intelligence and enterprise of the agricultural classes. Food, clothing, houses, and utensils all show an improvement. The prosperity of the irrigation colonies in particular is shown by the large circulation of sovereigns, and £147,000 was remitted from the Lyallpur Colony district alone by money order to other districts.

*North-West Frontier Province.*—The condition of the people was generally prosperous and improving. The harvests, both spring and autumn, were above normal.

*Central Provinces and Berar.*—The year 1910–11 continued the good conditions of 1909–10. The harvest was excellent, prices low, and demand for labour keen. The shortage of cotton was compensated for by the high prices obtained.

*Burma.*—In Lower Burma the harvest was not so good as in 1909–10, but high prices compensated the agriculturists for this. In various districts it is reported that the demand for labour exceeds the supply. Rubber cultivation is employing an increasing number of well-paid labourers. In Upper Burma the bad harvest was more severely felt, and deteriorated conditions were reported from some places. Prices, though lower than in the previous year, were sufficient to yield a good return. A good deal of Indian loanable capital has been withdrawn from agriculture in recent years for investment in oil and other industrial companies. The population in general is increasing in prosperity, comfort, and intelligence.

*Eastern Bengal and Assam.*—Although rice and jute gave somewhat smaller outturns than in 1909–10, the increase in prices made up for this, while the price of the chief foodstuffs fell, and the year was on the whole distinctly favourable. There were floods in Mymensingh which did some damage.

*Madras.*—Both the south-west and north-east monsoon were more favourable than the average. Prices continued high, and wages are rising. The latter tendency adversely affects the large landholder, but the small cultivators who work on their own land are doing well, and in many cases acquiring sufficient capital to make them independent of the money-lender.

*Bombay and Sind.*—Owing to the excellence of the season many small agriculturists found it unnecessary to supplement their means of livelihood by undertaking day-labour, thus increasing the scarcity of labour in this province. This was the third good season running in Bombay, and there are signs in all directions of increasing prosperity.

# CHAPTER XVII.

## ARMY AND MARINE.

*(For further details see Statistical Abstract for British India, Tables 70 and 187 to 195.)*

### ARMY.

The sanctioned establishment of the army in India for 1910–11 and its actual strength on 1st April 1911 were as follows :—

| | Sanctioned Establishment. | Actual Strength. |
|---|---|---|
| British officers | 6,255 | 6,318 |
| British warrant and non-commissioned officers and men | 73,613 | 74,263 |
| Native officers, non-commissioned officers, and men | 159,426 | 151,974 |
| Total, 1910–11 | 239,294 | 232,555 |
| „ 1909–10 | 238,989 | 232,814 |

During 1910–11, as in the previous year, four battalions of Native infantry were employed in the colonies. One battalion from the Indian establishment continued to be absent in North China. One battalion was employed for a short time in Somaliland.

The sanctioned establishment of the Native army reserve was 35,736, and its actual strength on 1st April 1911 was 39,732, as against 37,422 on 1st April 1910.

The number of Volunteers in the whole of India on 1st April was as under :—

| | 1910. | 1911. |
|---|---|---|
| Enrolled strength | 38,402 | 39,012 |
| Efficients | 36,816 | 35,009 |
| Reservists | 2,461 | 2,859 |

The net expenditure on the army (exclusive of Special Defence Works) in 1910–11 as compared with that in 1909–10 was as follows :—

| | 1909–10. | 1910–11. |
|---|---|---|
| | £ | £ |
| Effective charges | 14,878,644 | 14,997,969 |
| Non-effective charges | 3,044,809 | 3,075,162 |
| Total | 17,923,453 | 18,073,131 |

During 1910–11 special funds were allotted for the purchase of arms and for the reconstitution of the reserve of artillery horses. Progress was made in the construction of a better type of lines for Indian infantry.

The operations of a combined military and naval force sent to the Persian Gulf in January 1910 for the suppression of the illicit traffic in arms were continued during the year 1910–11.

*Health of the British and Native Armies.*—During the year 1910 there were no adverse conditions to check the remarkable improvement of recent years. In the British Army the rates of admission to hospital, of constantly sick, of invaliding, and of mortality, shown in the table on the next page were the lowest ever recorded. Every chief disease, except tubercle of the lungs and diseases of the respiratory system, shared in the decrease of sickness. An important cause of the recent and rapid improvement in health is personal hygiene, soldiers being instructed how to protect themselves against enteric fever and malaria. As regards enteric fever, they are taught by leaflets and lectures the advantages of inoculation, and mosquito curtains, anti-larval operations, segregation, and quinine treatment are employed to guard against malaria. The marked decline in venereal diseases is attributed to the encouragement of healthy pastimes, to education and a better moral tone, and to the growth of temperance, as well as to improvement in the methods, and the longer duration, of hospital treatment. There was much greater sickness and mortality during 1910 in the Northern than in the Southern Army. There was a decline in

invaliding, from 649 to 563, tubercle of the lungs, nervous, mental, and ear diseases being the chief causes. The decline of admissions for malaria from 14,511 in 1909 to 9,572 in 1910 (*i.e.*, from 203 to 132 per mille) is particularly gratifying. The rate for all venereal diseases was 58·9 per mille, which compares favourably with 67·8 in 1909 and still more with 486 in 1897. The chief causes of death were enteric fever and abscess of the liver, the mortality from these being 0·63 and 0·48 per mille respectively. The mortality from enteric fever was the lowest ever recorded, and the number of deaths was only 46 as against 113 in 1909.

The health of the Native troops was extremely good, all the rates shown in the table below (save that of "constantly sick") being the lowest on record. The chief cause of sickness was, as usual, malaria, the admission rate for 1910 being 160 per mille, or 28 per cent. of all cases of sickness, as against 180 in 1909. Pyrexia, dysentery, and respiratory diseases were other important causes of sickness. Pneumonia, which, as usual, was the chief cause of mortality, accounted for 27 per cent. of all deaths, the rate being 1·34 per mille. Enteric, respiratory diseases, and malaria helped to swell the mortality. There were 22 deaths from plague during the year. The chief causes of invaliding were tubercle of the lungs, injuries, venereal diseases, and debility. Sickness and mortality were much higher in the Northern than in the Southern Army.

| | Ratio per Mille of Strength. | | | | | |
|---|---|---|---|---|---|---|
| | British Troops. | | | Native Troops. | | |
| | Average 1904–8. | 1909. | 1910. | Average 1904–8. | 1909. | 1910. |
| Admissions into hospital | 840·6 | 716·9 | 576·5 | 635·6 | 584·2 | 572·8 |
| Constantly sick | 50·6 | 40·3 | 31·9 | 22·9 | 20·8 | 21·1 |
| Deaths | 9·86 | 6·25 | 4·66 | 7·34 | 5·62 | 4·89 |
| Invalids | 25·23 | 9·07 | 7·77 | 8·13 | 5·74 | 5·21 |

## Military Works.

The net expenditure on military works in 1910–11 amounted to £829,844. There was also an expenditure of £7,987 on Special Defence Works. The corresponding figures for 1909–10 were £782,569 and £28,604.

## Marine.

The net expenditure on marine services amounted to £354,080 in 1910–11, as against £377,697 in 1909–10. In this amount are included the cost of the Royal Indian Marine and the contribution towards the expenses of His Majesty's ships employed in the Indian seas.

On the 1st April 1911 the Royal Indian Marine consisted of three troopships and ten other sea-going vessels, three inland vessels, three flats, one hulk, and a number of small steamers, launches, &c. There was an establishment of 104 executive officers, 82 engineer officers, 65 warrant officers, and 12 assistant surgeons of the Indian Subordinate Medical Department; while the native crews of the vessels (seamen, artificers, and others) numbered, in all, 1,961.

# CHAPTER XVIII.

## FRONTIERS AND NATIVE STATES.

### Frontier States.

*Baluchistan: Frontier and Native States.*—The province was generally peaceful during the year 1910–11, though the Northern Zhob frontier was considerably harried by trans-border outlaws. Serious crime decreased by nearly 22 per cent.

The whole of the country, with the exception of Kharan, was included in the census of 1911. The provisional total of the population was given at 811,000, to which should be added that of Kharan, estimated at 19,000.

Owing to want of rain, the year was not a prosperous one for agriculture. As a result of a visit to the Allahabad Exhibition, some modern machinery has been introduced by leading Zamindars, and far reaching results are hoped for. An attempt is to be made to introduce the European olive into Baluchistan, and the development of the fruit industry is proceeding. Large irrigation and water storage projects are in contemplation in the Loralai, Quetta-Pishin and Sibi districts.

The land revenue, amounting to £59,400, was £7,400 less than in the preceding year. The raising, from 1st April 1910, of the duty on bhang to the rate imposed in Sind, resulted in a reduction of the amount consumed in Baluchistan during the year by 60 per cent. Large quantities of the drug had in previous years been smuggled into Sind.

A reorganisation of the civil offices took place during the year. The posts held by trained teachers in the elementary schools were made pensionable.

The total value of trade with Persia and Afghanistan showed a small advance. Trade with Persia, £82,300, was somewhat less than in 1909–10. Exports to Afghanistan slightly increased. English piece goods appeared to be preferred to Indian manufactures in the Afghan market. On the other hand, the export of Indian cotton piece goods to Persia more than doubled, while there was a heavy reduction in the demand for the European product. Owing to a decrease in imports, the total trade between Baluchistan and India fell off to the extent of £75,600.

Apart from a few minor raids by trans-border tribesmen, the Quetta-Pishin frontier was generally peaceful. But in Zhob many border disturbances took place, especially during the latter half of the year, and the Zhob Levy Corps was attacked on several occasions. The raiders were mostly Mahsuds, Sulemankhels, and Shiranis. The weapons of the Zhob Levy Corps having been found inferior to those of the tribesmen, it has been decided to issue ·303 rifles to the corps.

Several murders were committed in the Loralai district, without the detection of the offenders. Dissensions among the Hamzazai tribesmen caused some trouble towards the close of the year.

The only tribe whose conduct proved distinctly unsatisfactory were the Shiranis of the Zhob district. Their condition of unrest was attributed partly to their lack of unity, and remedial measures have been proposed, though no decision was arrived at during the year.

In the Sibi and Zhob districts, 2,000 cases in which natives were concerned were disposed of by reference to tribal jirgas. The system has been found to work satisfactorily and tends to spread. The findings of the jirga are usually accepted by the Political Agent.

The combined naval and military operations in the Persian Gulf were continued during the year. Several large consignments of arms and ammunition were captured by H.M.'s ships, and the landing of arms on the Mekran coast was rendered more difficult. A large proportion of the Afghans and tribesmen who proceeded to the gulf with the object of purchasing arms are reported to have failed to obtain them, and the trade is now looked upon as extremely difficult and hazardous.

In consequence of unfavourable seasons the revenues of the six Niabats that are administered by the Political Adviser to the Khan of Kalat fell off considerably. In Jhalawan the relations between the tribesmen and their Sirdars were not satisfactory.

Sericultural operations in Kalat were temporarily abandoned, after a seven years' trial, owing to the loss incurred. It is proposed to repeat the experiment in a few years' time when the State has at command an adequate supply of mulberry trees.

The unsatisfactory attitude of the Chief of Kharan* continued, despite a meeting with the Political Agent, in August 1910, at which he admitted his past misconduct and promised amendment.

*North-West Frontier Province.*—During the year under report conditions varied considerably on different parts of the border. The relations with Government of the tribes north of the Kabul river and west of the Indus remained friendly. The tribes south of the Kabul river, viz. the Afridis, Orakzais, Wazirs, and Mahsuds, at times gave cause for anxiety. In particular the Adam Khel Afridis made a bold, but entirely unsuccessful, attempt to obtain compensation from Government for losses due to the suppression of the trade in smuggled rifles and ammunition. The outstanding feature of the year, especially on the Kohat and Bannu borders, was the great growth in the number and importance of gangs of professional outlaws, who, from bases across the border, harassed and kidnapped inhabitants of the settled districts. The matter engaged the attention of the Government of India, who addressed H.M. the Amir, with the result that all the captives then in Afghanistan were released, and most of the notorious outlaws in Khost arrested by the Governor of that province. The remaining outlaws were thereby driven into the belt of independent territory between our administered districts and the Afghan border, and it was then possible, by putting pressure upon the tribes, to deal with many of the more notorious raiders. At the close of the year the border was quieter than it had been for some time.

The Indo-Afghan Commission, referred to in the previous Report, which met from May to October 1910 for the consideration of outstanding disputes, besides settling a large number of cases, came to an agreement with regard to the removal of outlaws from both countries to at least 50 miles from the border. In addition the presence of the Commission, indicating as it did some solidarity between the British and Afghan Governments, exerted a pacific influence locally. This was particularly the case in Kurram. Within the Kurram valley a steady advance in prosperity was recorded.

In Dir, Swat and Chitral the year was not marked by any striking events, and relations with the chiefs and tribes continued satisfactory. The harvest in Swat was the finest ever known.

As regards the Mahsuds the year opened inauspiciously. Raiding was prevalent, and the well-behaved sections were suffering for the misdeeds of others. But subsequently, owing to the efforts of the local officers, better relations were established, raiding was greatly reduced, and employment in connection with road-making and railways was found for large numbers of Mahsuds. The reports received on the quality of the work done were very satisfactory. At the close of the year the conduct of the Mahsuds was better than at any time in their history.

Caravan traffic through the Khyber went on throughout the year without interruption, and the receipts from tolls increased. The fact that two of the Amir's motor cars ran through to Peshawar from Jalalabad deserves to be placed on record, as a landmark in the history of the road.

A high standard of discipline and behaviour was maintained in all the Frontier Militia Corps. The difficulty of obtaining suitable recruits for the Northern and Southern Waziristan Militias was still experienced. The question of the reorganisation of the Border Military Police, the state of which was very unsatisfactory, remained under consideration.

*Kashmir.*—In Kashmir the year 1910–11 was uneventful and marked by no great changes in the administration.

The finances of the State were in a satisfactory condition. The actual receipts for the year were £757,700, against £761,400 during the preceding year, which was financially the most prosperous year in the recent history of Kashmir, and the actual expenditure was £707,500, against £706,900 during 1909–10, resulting in a surplus of £50,200. This satisfactory result was brought about largely by the generally prosperous revenue receipts, especially in the Forest and Sericulture Departments. The year closed with a cash balance of £225,000 as against an opening balance of £161,600.

There was great activity in the Public Works Department during the year. A new rest-house at Baramulla, a new Palace at Anantnag, and improvements to both the Jammu and Srinagar inner palaces were completed A building for seed selection

* Shortly after the close of the year under review the Chief was murdered by the Sepoys of his guard. The Government of India have since recognised the succession of his eldest son, Sardar Habibulla Khan, and approved measures for the administration of the State during his minority.

and testing in connection with the silk factory was constructed at Srinagar. A cocoon shed, an office, a sorting room, and a weighing shed were completed at Jammu. A boarding house in connection with the Prince of Wales' College in Jammu and New Body Guard Lines at Satwari in Jammu were completed. A lunatic asylum was commenced in the Srinagar Jail, and a leper asylum at Jammu. Under irrigation, the Tawi Protection Works against erosion of the Tawi river at Jammu, which were commenced in 1905–06, were completed. Various improvements were effected on existing roads and certain minor bridges were repaired or constructed. The Jhelum Power Electrical scheme worked most satisfactorily and considerable progress was made with the connected dredging scheme.

The working of the Sericulture Department was very satisfactory. The number of rearers in Kashmir and Jammu rose from 27,109 to 36,111, and the cocoons produced increased from 37,663 to 42,093 maunds.

During the year two high schools, two secondary schools, and thirty-two primary schools were opened, besides one college and three girls' schools. Three primary schools were raised to the standard of secondary schools, and the total number of educational institutions stood at 212.

A cattle fair was held at Jhiri, near Jammu city, in November 1910, and was a great success. Prizes were distributed for the best animals as a stimulus to horse and mule breeding.

A serious epidemic of cholera lasted from June to November and accounted for 9,218 deaths out of some 18,448 seizures. Plague appeared in the Jammu province during the winter and there were 598 deaths out of 1,015 seizures.

*Sikkim.*—During the year 1910–11 the weather conditions were generally favourable and the rainfall was normal. The staple crops, maize and rice, were good and prices ruled low. The orange crop was an abnormally large one. Labour was scarce and high wages prevailed.

The public health was on the whole good. The State was free from all serious epidemics. A small dispensary was opened at Vok near Namchi by the Church of Scotland Mission.

5,675 persons were vaccinated, against 6,105 persons during the preceding year.

Progress of education in the two boarding schools maintained in the State was fair, and the health of the boys was good. The Maharaja continues to take an interest in both the schools. Vernacular schools were opened by the Maharaj-Kumar in Namchi, Rhenok, and Pathing. The Church of Scotland Mission, assisted by the State, maintained 12 day schools, 12 night schools, and 3 lace schools. Efforts are being made by the Mission to improve the teaching in the schools by the adoption of some kindergarten methods.

A census of the population of the State was taken during the year. The result showed an increase of 49·4 per cent. upon the figures of 1901.

The demarcation of the forest areas in the State was completed and the survey of the same was nearly finished.

The receipts and expenditure of the State during 1910–11 amounted to £12,766 and £13,096, against £12,770 and £13,170 respectively during the preceding year.

The Sikkim Debt Regulations were passed by the Council in November 1910.

The most important domestic event of the year was the death of the Maharani of Sikkim.

*Frontier Tribes of Eastern Bengal and Assam.*—The customary distribution of *posa* was made to the Bhutias, Kapachar Akas, and the Charduar Daflas. With a view to stimulating Bhutia trade the reconstruction of the road between Darranga and Dewangiri was taken into consideration. A punitive expedition had to be sent against certain Dafla raiders. In consequence of disturbances among the Gachi Miris, in which settlers in British territory were involved, orders were given for the removal of the latter to a distance from the Inner Line. The Mishmis were still blockaded, with the few exceptions noted in the Report for 1909–10. In the course of a tour early in 1911 in the direction of Rima, Mr. Williamson, Assistant Political Officer, Sadiya, found that the Chinese had asserted their authority over all the Tibetan villages in this region, and had placed two flags, as boundary marks, within a short distance of Menilkrai.

In March 1911 Mr. Williamson, accompanied by Dr. Gregorson, visited the Meyong villages to inquire into the extent of Tibetan influence in that direction. On advancing to Komsing Mr. Williamson was at first treated well, but a sudden attack was made on his party, and, with the exception of five coolies, all were killed. Dr. Gregorson and his men, who had remained at Sishin, were also murdered.

There was reason to believe that the murder was prearranged, and that several of the Meyong villages were involved. The five refugees were picked up by a force of Lakhimpur military police, who advanced to Pasighat.*

In the Naga Hills a raid committed during the previous year was punished by an expedition which destroyed the offending village. The deforestation of certain areas in the Garo Hills was sanctioned, and house-tax paying Garos were granted privileges with regard to wood cutting. The education of the rising generation of Lushai chiefs, several of whom showed considerable promise, received careful attention, in view of a tendency towards the weakening of the chiefs' authority, owing to the rapid progress made among the Lushais in recent years. The Siems of the Khasi and Jaintia Hills generally behaved well, but those of Mawsanram and Nongspung continued to seek opportunities of extending the boundaries of their territory. There was some opposition to the census operations, due to a fear that evidence would be collected that might prove of value in the event of a boundary suit.

Information as to the Manipur State is given on page 131.

*Burma.—Kachin Hills and North-Eastern Frontier.*—The condition of the Chinese marches was in the main peaceful, only one raid into British territory taking place. In unadministered territory the most notable event was the despatch of columns to Hpimaw and Hkamti Long from Myitkyina. The attitude of the tribes encountered was friendly. A military police post was established at Lauhkaung, on the 'Nmaikha. The total number of criminal cases instituted in the Kachin Hill Tracts fell, but violent crime increased in the Bhamo district. The amount of tribute demanded rose, but collection was effected without difficulty. The work done by headmen was generally good, and inter-village paths were well maintained.

*The Chin Hills.*—During the year joint columns of military police were successfully despatched, from the Upper Chindwin district and the Naga Hill Tracts respectively, for the purpose of punishing the village of Makware, in unadministered territory, for a raid perpetrated in Upper Chindwin. In the Chin Hills proper the rate of tribute was raised, but the enhanced demand was realised without difficulty. In the other administered regions inhabited by Chins the year was uneventful.

*Shan States.*—The condition of the Southern Shan States remained peaceful; the rainfall was favourable to cultivation, and trade and the revenue of the States expanded. The new railway line to the Southern Shan States was surveyed as far as Yawnghwe, the proposed terminus. Government was compelled to reduce its grant to the Shan States for ordinary public works, but the contributions of the Chiefs were greater than in the preceding year. Throughout the States serious crime showed an increase, though the amount of crime of the less heinous kinds diminished. In the Northern Shan States the border was not free from disturbance. In the unadministered regions in the east of the States there were also dissensions, and measures of reorganisation were found to be necessary in the management of the State of North Hsenwi. The State of Mong Mit enjoyed an uneventful and prosperous year.

Five new public schools were registered in the Northern Shan States.

*Karenni.*—The year was notable for the success of the efforts of the Council administering the State of Kantarawadi to restore its finances, and for an extension in the cultivated area, affording a new means of subsistence to a population that had chiefly depended on forest occupations for a livelihood, until the decline of the timber trade during recent years.

## Native States.

*Hyderabad.*—The information regarding the administration of Hyderabad is for the calendar year 1910, during which period the State was ruled by Lieutenant-General His Highness Sir Mahbub Ali Khan, G.C.B., G.C.S.I. His Highness died on the 29th August 1911 and was succeeded by his son, Usman Ali Khan.

The rainfall in the State averaged 36 inches or 7 inches more than during the year 1909 and was ample except in the Raichur district. The prices of food grains were uniformly lower than during the preceding season.

The State was almost free from plague during the early part of the year. The disease, however, steadily increased during the latter part of the year and between July and December the monthly number of deaths rose from 115 to 1,399.

* Punitive operations against the Abors were undertaken by an expeditionary force at the close of 1911.

Some advance was made towards the settlement of the long-standing dispute between Ushtepalli in the Hyderabad State and Gudimetla in the Krishna district of the Madras Presidency.

A Commission met in November 1910 to settle the boundary disputes between the Nizam's Dominions and the Kurundwad States in the Bombay Presidency.

In January 1910 the late Nizam entered into a reciprocal arrangement for the service of processes, free of charge, with certain States in the Malwa Political Agency and subsequently extended this arrangement to certain other States in the Central India Agency.

Owing to the difficulties experienced in the extradition of criminals between British India and Berar, negotiations were opened with His Highness's Government with a view to the conclusion of a treaty providing for the unrestricted extradition of offenders from Berar to British India and *vice versâ*. The agreement was eventually signed in 1911.

With a view to preventing the dissemination of seditious literature in his State, the late Nizam issued a notification prohibiting his subjects from taking in certain extremist papers published in British India. At the same time an arrangement was made with the British Government for the seizure by the postal authorities of such objectionable literature as might be received through the Imperial post offices in the Hyderabad State.

The output of gold mined by the Hutti (Nizam) Gold Mining Company, Limited, was 15,762 ounces, valued at £60,450 2*s.* 6*d.*, showing an increase of £4,029 7*s.* 2*d.* over the returns for the previous year. The cost of working, however, increased. The Singareni Collieries, which are owned by the Hyderabad (Deccan) Company, Limited, produced 506,173 tons of coal during the year under review, against 442,893 tons raised in 1909. The average number of persons employed daily in the collieries was 9,031, against 8,517 during the preceding year.

In June 1910 the Hyderabad Government agreed to the construction of a telegraph line along the road from Raichur to Hutti, and to the opening of a combined post and telegraph office at the latter place, the line to be constructed and maintained as part of the Imperial system.

The money order system was introduced in the Nizam's post offices with effect from the 20th September 1910.

His Highness the Nizam's Government sanctioned the grant of a licence to the Indian and Colonial Development Company, Limited, of London, for a motor-car service in the Hyderabad State.

His Imperial and Royal Highness the Crown Prince of the German Empire and of Prussia visited Hyderabad in December 1910, and was the guest of the late Nizam. Before his departure the Prince invested His Highness with the first class of the Order of the Red Eagle.

Remission of sentences, on the same scale as that prescribed in British India, was granted by the Nizam's Government to prisoners in the State jails to mark the accession of His Majesty King George V., Emperor of India.

*Mysore.*—The rainfall during the year 1910–11 was timely and general, the average for the State being 48·29 inches or 10·11 inches more than in the preceding year. As a result the outturn of crops was distinctly good and the prices of food-grains fell to some extent.

The public health was not satisfactory. The birth-rate was 18·25 per mille of population, against 16·63 in the preceding year. The death-rate was higher, the ratio being 19·92 against 18·70 during 1909–10. Though small-pox and cholera were less virulent than in the previous year, fever continued to be the cause of an increasing number of deaths. Plague also prevailed widely and claimed a large number of victims. The usual preventive measures were adopted in all the affected places, particular attention being paid to prompt evacuation and inoculation.

The total number of persons vaccinated was 62,261, against 102,438 in the preceding year. The decrease was due to the prevalence of plague and in part to the failure of an adequate supply of lymph for some days owing to a difficulty in obtaining the required number of calves. The system of compulsory vaccination was continued in the Mysore and Bangalore cities, on the Kolar Gold Fields, and in certain other municipalities in the State.

Eight cattle shows were held and were well attended. A pony show at Harihar and an Agricultural and Industrial Exhibition on a small scale at Channagiri were also held in connection with the cattle shows at these places. An Industrial and

Agricultural Exhibition was organised in April 1911 at Chitaldrug in conjunction with an Educational Exhibition and was a great success.

Resurvey operations were completed in 535 villages covering an area of 774 square miles. Re-classification of water supply to wet and garden lands was completed in 610 villages.

Good progress was made in regard to the co-operative movement in the State. The number of societies increased from 70 to 116, but five closed. With a view to resuscitate the Agricultural Banks the Mysore Darbar decided to bring them, if possible, under the Co-operative Societies Regulation, and 14 banks accordingly signified their willingness to convert themselves into co-operative societies. Two new joint stock companies were registered and four were wound up, and the total number working at the end of the year was 78.

The year was an important one in the matter of the gold mining industry in Mysore. The long-pending question of the renewal of the mining leases of certain blocks on the Kolar Gold Fields was finally disposed of by the issue of fresh leases to Messrs. John Taylor and Sons, London, for a further term of 30 years with effect from the 22nd March 1910. The number of leases and licences for mining and prospecting issued or renewed during the review was 58, against 50 in the preceding year.

The total expenditure on public works from all sources, including local funds, amounted to about £240,000, against £245,000 during the year 1909–10. Of this amount £51,700 were spent on irrigation works and £188,300 on civil works and military buildings.

The regular police force was maintained at the sanctioned strength, viz., 851 officers and 5,949 men, against 831 officers and 5,065 men during the previous year. The cost of the Department was approximately £60,500 as against £63,000 in the preceding year.

The year was one of satisfactory progress in education. The total number of public and private institutions was 4,266, with an attendance of 137,983 pupils, against 4,292 institutions, with an attendance of 137,729 pupils, in the preceding year. The percentage of boys at school to the total male population of school-going age decreased slightly from 28·06 to 27·9, while the percentage of girls at school to the female population of school-going age slightly increased from 5·4 to 5·6, and the number of institutions for girls rose from 286 to 294. The number of industrial and weaving schools decreased from 21 to 20, but attendance rose slightly from 1,230 to 1,234.

A Museum of History and Economics was started for the benefit of college students and a number of historical maps was purchased. The building of the new Physics Laboratory of the Central College was completed.

With the object of associating non-official gentlemen with the officers of Government in deliberations connected with economic progress in the State, His Highness the Maharaja ordered the formation of the Mysore Economic Conference. The first session of the Conference was held in June 1911.

The Mysore Legislative Council held three meetings. Twenty-one bills were considered, including nine which were pending from the previous year. These nine, as well as three of the new Bills, were passed into law. The remaining nine Bills were in various stages of progress.

The State Life Insurance Fund continued to be in a satisfactory condition. Excluding policies paid or otherwise lapsed, there remained at the end of the year 13,965 policies held by 7,562 persons, assuring a bonus of £447,000 for a monthly premium of £1,500.

The total receipts of the State for the year were estimated at £1,642,000 against an estimated expenditure of £1,470,000. The actual receipts for 1909–10 amounted to £1,624,000 against an actual expenditure of £1,484,000.

*Baroda.*—The following information is for the year ending the 31st July 1910.

The rainfall during the year was fairly evenly distributed, and despite its early cessation in September 1909 the outturn of crops was on the whole better than that of the preceding year. The land-revenue collections were satisfactory, the percentage being 98·2 of the demand against 97 during the previous year.

There was a slight decline in the number of births, the rate per mille of population as compared with the previous year being 24·8 against 24·9. The death rate rose from 21·9 to 22·8.

An agricultural show was held at Dwarka in October 1909. Later on, in February 1910, an agri-horticultural exhibition and a flower show were held at Baroda where

various agricultural exhibits from the Baroda Model Farm were shown, and the working of the improved implements and the rearing of Eri silkworms and the reeling of their cocoons were demonstrated. Showing processes connected with the manufacture of Eri silk were held at Sukla Tirtha Fair (Broach District), Nadiad Agricultural Show and Naosari Ladies' Exhibition.

An arrangement was concluded, as a tentative measure for six years, whereby summonses and other non-compulsory processes issued by any civil or revenue court and decrees passed by any civil court in the Baroda State can be forwarded for service or execution direct to the British courts established or continued by the authority of the Governor-General in Council outside British India and *vice versâ*.

An arrangement was come to between the Baroda and Gwalior Darbars with regard to the reciprocal waiver of charges for the maintenance and conveyance of prisoners and property in extradition cases.

A reciprocal arrangement was concluded between the Baroda Darbar on the one hand and the States and Talukas in the Palanpur Agency, as also the Thana Circles and petty States under the said Agency, in the Bombay Presidency on the other hand, for payment by the courts concerned of *bhatta* to witnesses summoned to give evidence in criminal cases and in magisterial enquiries for the preparation of *primâ facie* cases, the rates of *bhatta* to be paid being uniform.

Facilities were afforded for the extension of the British postal system in the Baroda State.

The chocolate factory at Billimora, which was handicapped for want of capital, started work towards the close of the year. The Alembic Chemical Works Company, Limited, also started the working of their factory for the manufacture of alcohol at Baroda. The Kadi Ginning Pressing and Oil Mill Company was organised with a capital of £10,000.

There were 34 co-operative credit societies at the commencement of the year under review. Two of these were registered after the publication of last year's report. Thirty-one new societies were registered, and four cancelled, thus leaving 61 societies at the end of the year. The Baroda registrar of co-operative credit societies attended the conference of registrars of such societies which was held in British India.

With certain exceptions, export, import, and octroi duties were abolished.

The State Council, presided over by the Minister, held 50 ordinary and 1 special meeting and dealt with 496 matters, 86 of which were referred to His Highness the Gaekwar for orders, as they were beyond the powers of the Council. The Legislative Department passed 11 Acts and 29 sets of rules concerning several departments of the State.

Under the immediate control of the Baroda Education Department there were 1,264 educational institutions of different kinds, in 41 of which English is taught, against 1,267 in the preceding year. The number of students on the rolls was 6,060, against 4,888 during the preceding year, excluding the Baroda College and the Girls' High School. For vernacular education there were 2,833 institutions, against 2,803 during the year 1909–10. The number of pupils on the rolls was 164,737, as compared with 165,266 in the preceding year.

Various important public works were completed or were in progress during the year. The total expenditure on public works inclusive of establishment charges but excluding railways amounted to £218,000 against £206,400 during the previous year. One hundred and two miles of railway line were under construction.

The sanctioned strength of the police force, excluding non-effectives, was the same as in the preceding year, viz., 926 officers and 3,944 men.

The total number of patients treated in all the medical institutions of the State during the year under review was 384,768, against 384,366 in the foregoing year.

The total income and expenditure of the State amounted to £1,202,400 and £918,400 respectively, compared with £1,173,600 and £940,000 during the preceding year.

His Highness the Gaekwar visited Japan, America, England, and Paris, embarking for Japan on the 28th March 1910 and landing at Bombay on the 16th December 1910.

*Central India.*—The following information regarding the Native States in Central India is for the year 1909–10 :—

The rainfall was on the whole sufficient and well-distributed, except in the Bhopawar and Malwa Agencies. The out-turn of crops was, on the whole, satisfactory; that of wheat and cotton showed a marked increase on the figures of the

previous year. The area under opium diminished and the out-turn was only moderate. The prices of food-grains ruled higher than the average except in a few localities. This was partly due to the absence of rain during the month of August, but a few showers received towards the end of December caused a fall in prices. The condition of the agricultural stock was generally good, except in Narsingarh, where the cattle suffered during the months of August and September. Generally speaking, there was a return to more prosperous conditions—a change which, coming after a series of lean years, was much appreciated by the people and helped to improve the finances of the States. In all States forestry continued to receive increased attention. Experiments made in the propagation of lac promised good results.

Small-pox again visited Central India, but though more or less widespread it was not severe. The total number of deaths from plague was 3,533, against 1,404 during the preceding year. An outbreak of cholera occurred during the Singhast Mela at Ujjain in May, and spread to the adjoining parts of the Indore, Gwalior, Bhopal, and Malwa Agencies.

The total outlay on Imperial Public Works amounted to £53,040, against £78,920 during the preceding year. The total length of roads maintained by the Department in Central India was 755¼ miles, against 750¼ during the year 1908-09.

The actual strength of the Central India Agency Police Force was 49 below the sanctioned strength of 470 of all ranks. This was chiefly due to the difficulty experienced in recruiting. An increase of Re. 1 per month in the pay of constables, to which provisional sanction was accorded during the year, relieved the situation.

The expenditure incurred on the Daly College buildings during the year was £11,660, bringing the total expenditure up to £50,350. The number of boys on the rolls was 55, against 69 during the preceding year. The health of the boys was satisfactory on the whole. The College, however, had to be closed for some time owing to an epidemic of plague.

Ruling powers were granted to Rana Ranjit Singh of Barwani in January, 1910.

*Rajputana.*—The following information regarding the Native States in Rajputana is for the year 1909–10.

The rainfall was timely and well distributed throughout the Agency, except in Jaisalmer, Kishangarh and Sirohi. Generally speaking, the outturn of crops was satisfactory and the condition of the people good. No coercive measures were resorted to for the collection of State dues. The prices of foodstuffs exhibited a general tendency to fall, and there was a general immunity from famine and a decrease in serious crime.

The public health was not on the whole satisfactory. Cholera broke out in Kota and Dungarpur city, and in the latter State malaria was prevalent. The usual measures to combat the disease were taken. Plague occurred in an epidemic form in Jaipur, Bharatpur, Marwar, Mewar, Tonk and Alwar. In the infected villages evacuation, disinfection, and segregation were carried out largely by the people themselves, the poorer being aided by the State.

The condition of agricultural stock was generally fair, and there was no scarcity of water or fodder supply.

In Jaisalmer there was a rise in the prices of food grains, which was mainly attributable to deficiency of rainfall and greater exports and smaller imports as compared with the preceding year.

In Banswara a considerable amount of waste land was brought under cultivation. Cattle disease was severe in certain villages of the State.

In Shahpura the out-turn of kharif crops was good. Maize, which is the staple food of the chiefship, grew abundantly.

*In Dholpur excellent crops were harvested, yielding a full out-turn. Trade was remarkably brisk.

In Dungarpur both the kharif and rabi crops were of very fair quality and good harvests were reaped. The area under cultivation for rabi rose from 7,635 in 1908-9 to 13,091 acres in 1909–10. Fodder reserve as a precaution against famine was started on a moderate scale throughout the State.

There was an appreciable increase in the cultivated areas under kharif and rabi in Bharatpur.

In Bundi the agriculturists were specially benefited by good harvests.

Egyptian cotton was grown on the experimental farm in the Sirohi State, and attempts were made to encourage its cultivation by agriculturists.

---

* The Maharaj Rana of Dholpur, who died in March 1911, has been succeeded by his brother.

The Stratton Cattle Fair was held at Dig in Bharatpur from the 27th August to the 2nd September 1910. The number of cattle at the Fair was the largest on record.

In Bharatpur a second cotton ginning factory was started during the year under review.

The year 1909–10 was one of great activity in the Public Works Department of the Marwar* (Jodhpur) State, the total outlay aggregating over six lakhs. The survey of the proposed extension of the Jaipur State Railway northwards to Churu in Bikaner was completed, and the Durbar were ready to begin construction operations.

The number of State schools in Bharatpur fell from 107 to 103. The number of private institutions rose from 33 to 40. A lower primary school was opened. The school at Khamera in Banswara was closed owing to the small attendance, and a new school at Bori was opened. The foundation stone of a girls' school to be called "The Colvin Girls' School" was laid at Jhalawar.

At Lohari in Mewar (Udaipur) a Hindu school was instituted for educating the Mina boys. In Marwar (Jodhpur) two vernacular schools were converted into Anglo-vernacular schools and one Anglo-vernacular school and ten new vernacular schools were opened during the year. Six new schools were opened in the Kota State. Three Patwari schools were opened in Tonk.

Two new dispensaries were constructed in Marwar (Jodhpur).

The offer of the Maharaja of Bikaner to convert his infantry regiment, 500 strong, into Imperial Service Troops, was accepted.

His Highness the Maharaja of Bharatpur returned to India in October 1910 after absence in England for nearly two years.

*Bengal.*—In the Cooch Behar State the harvests of 1910–11 were good and prices were satisfactory. The area under tobacco increased by 40 per cent. upon the preceding year, and the tobacco sold at high rates. The year was a healthy one and there was no cholera. Measures were actively prosecuted for improving the supply of drinking water, and a distribution of quinine at cost price was inaugurated, with a view to the prevention of malaria. The Legislative Council held two meetings during the year, while the State Council held 41 meetings on the executive side, 36 on the judicial. The new Tenancy Act came into force on August 1st, 1910. Good progress was made in education, especially in the primary schools.

The Maharaja, who attended the Coronation in June 1911, died at Bexhill in the following September.

In Chota Nagpur, the Seraikela State was administered by its chief. The Kharsawan State continued under Government management, but the minor chief, having completed his education at the Rajkumar College, was being trained in administrative work. Government sanctioned a scheme for the preservation of the forests of Kharsawan.

The Tributary and Feudatory States of Orissa enjoyed a prosperous year, and the public health was on the whole exceptionally good. The steady increase in expenditure on public works during the last few years was maintained, and an Agency engineer was appointed in 1911. An Agency forest officer has also been appointed, in order to check the denudation of forests in the Orissa States. Negotiations continued on the project for the extension of the Moharbhanj Light Railway. The States of Bonai, Hindol, Kalahandi, Keonjhar, Nayagarh, and Raira Khol were under Government administration. There were more pupils in boys' and girls' schools, although in pursuance of a policy of concentration the number of schools was reduced. The Maharaja of Moharbhanj† visited England and the Far East during the year under report.

*Eastern Bengal and Assam.—Manipur.*—The Manipur State continued to make steady progress during the year 1910–11. The abnormal rainfall caused damage to seedlings on low-lying lands, but the crops obtained from the high lands compensated for the loss. Steps were taken to popularise the cultivation of mulberry trees, and the use of improved hand-looms and improved methods of sugar making, and to encourage fruit culture. The income of the State was considerably enhanced by the revenue on timber removed from the State forests on the Cachar borders. A scheme for their preservation and proper working has been considered by the local

* The Maharaja of Jodhpur died in March 1911, and was succeeded by his son, a minor. Maharajadhiraja Sir Pertab Singh has abdicated the Chiefship of Idar and been appointed Regent of Jodhpur.

† The Maharaja died at Calcutta in February 1912 in consequence of an accident.

Government. The Durbar adopted a waterworks scheme for Imphal at an estimated cost of nearly £20,000, and the Government of India have sanctioned a loan of £13,000 in its support.

*Hill Tippera.*—In August 1910 the Raja married a cousin of the Maharajadhiraj of Nepal.

The prosperity of the people in this State is shown by the excess of immigrants over emigrants during the year.

The satisfactory outturn of the crops and the high prices of *til* and cotton, coupled with high wages, placed the agricultural and labouring classes in a very satisfactory position. The gross receipts rose to £133,000, and old liabilities to the extent of £27,000 were discharged.

There is a possibility of the opening up of mines or quarries. Red ochre, limestone, and kaolin have been found in considerable quantities, and the quality of some of the deposits has been pronounced excellent.

*United Provinces of Agra and Oudh.*—The financial position of the Rampur State was satisfactory, showing an improvement on the figures of the preceding year. At the end of the year there was a surplus of more than £75,000. Owing to good and seasonable rains the area under cultivation increased by 11,000 acres, and, although in the autumn of 1910 much damage to crops resulted from floods, and relief measures were necessary in some parts, the harvests were good. To this is attributable a further decrease in crime, especially in burglary and theft. Vital statistics showed a marked improvement on those of 1909–10, but malaria and plague prevailed for part of the year. An offer by the Nawab to contribute six companies of infantry to the Imperial Service Troops was accepted.

In Tehri some crops were damaged owing to abnormal rains and snow, and the price of all food staples rose considerably. The general health of the people was good. Vaccination was introduced during the year, and more than 10,000 persons were treated. A leper asylum was also opened at Barahat, and 113 patients were admitted. Education made considerable progress, as shown by an increased number of students and by the higher standard of efficiency attained. The State corps of Imperial Service Sappers, which continued to improve, was employed for three months on the Coronation Durbar works at Delhi.

*Punjab Native States.*—Agricultural conditions throughout the year 1910–11 were favourable, though somewhat less so than in the previous 12 months. Apart from a recrudescence of plague, which was experienced in the States of Patiala, Jind, Kapurthala, Maler Kotla, and Pataudi, the public health was good.

The Maharaja of Patiala was on 3rd November 1910 formally invested with full powers by the Viceroy, who visited the State for the purpose. The new Khanpur-Chachran feeder line in Bahawalpur was opened by the Lieutenant-Governor in February 1911. The line, 22 miles in length, is likely to be of great value to the State, which provided the funds for its construction.

In the Nabha State* a council of three was appointed by the Chief to assist him in the administration. The restoration of order after the disturbances in Mandi that were referred to in the Report for 1909–10, was followed by the loan to the State, on the application of the Raja, of an officer of the Indian Civil Service for employment as settlement officer. Disturbances were at one time threatened in a tahsil of the Bashahr State, but steps were taken to deal with the ringleaders and tranquillity was restored. The Chief of the Jubbal State died in April 1910; his half-brother succeeded him, and was invested with full powers. The Raja of Kapurthala was absent in Europe during the summer of 1910.

Since the close of the year under report, the Raja of Sirmur has died, and the succession of his son has been recognised.

*Central Provinces.*—The Report is for the calendar year 1910, in which the monsoon was very favourable in the States, the crops were good, trade was brisk, and prices were lower than in the preceding year. In almost all cases, the land revenue was collected without resort to any form of coercive process. Serious crimes, apart from those committed in the Bastar rebellion, referred to in the Report for 1909–10, were few. The public health was good, though cholera appeared in some of the States. In all the States except Bastar, where several schools were burnt by rebels, education made steady progress. The forest tribes in Bastar settled down to their cultivation as soon as the ringleaders had been dealt with and appeared

* The Maharaja of Nabha died on Christmas Day, 1911.

contented with the rule of the Chief, who was assisted by two British officers. With a view to the removal of grievances among the population, various reforms in the administration of this State have been introduced.

*Bombay.*—Though plague appeared during the year in Kathiawar, Kolhapur and the Southern Maratha States, the epidemic was nowhere severe and the public health was generally good in the States under the Bombay Government.

The harvest in most of the States was satisfactory. In Khairpur and Cambay, and to some extent in the Mahi Kantha and Rewa Kantha States the crops were damaged by late rains and by frost. The cotton crop in Kathiawar was disappointing. Elsewhere the monsoon was favourable, and as prices continued high, the output realised generally sufficed to bring the cultivator substantial profit. The agricultural classes, which form the great bulk of the population, were thus fully able to meet their liabilities, and remission of revenue on any large scale was nowhere called for. Wages remained high, and in a few localities agricultural operations were impeded by a scarcity of labour.

The Kathiawar ports did not share in the trade expansion that was experienced elsewhere in the Presidency. Imports increased slightly, but there was a fall of 23 per cent. in exports, though it should be remembered that the volume of trade in the previous year was exceptional. A marked increase, however, took place in the sea-borne trade of Janjira and Jafrabad.

Most of the States showed expanded revenues and increased abkari receipts. A series of good seasons has done much to secure conditions of general prosperity and rendered possible the progress in many branches of administration that has marked recent years.

In several States an increased expenditure on police organisation was accompanied by a decrease in reported crime. More money was laid out on public works and medical relief, especially in Khairpur, Rewa Kantha and Kathiawar. Educational progress was indicated by an increase of 2·5 per cent. in the number of schools.

The institution of tagai funds (State advances to cultivators), the establishment of grain depôts and systems of famine insurance, and the efforts made to introduce modern implements and to spread a knowledge of improved agricultural methods are signs of continued development along progressive lines, and of increased provision for the welfare of the cultivating classes.

The deaths occurred of three ruling Chiefs of Kathiawar, H.H. the Nawab of Junagadh, H.H. the Raj Saheb of Dhrangadhra and the Thakor of Wadhwan. The Nawab of Radhanpur was installed on the *gadi* in November 1910. In the same month the Dewan of Palanpur received the title of Nawab.

*Madras.*—The following information for the States of Travancore and Cochin is for the year ended 15th August 1910:—

In Travancore the season was favourable on the whole and the price of food grains fell slightly. A scheme for re-organising the Forest Department in all its branches was sanctioned by the Durbar. There was a slight decrease in the tonnage of vessels calling at the various ports, and the want of shipping facilities at Alleppey was still felt. Expenditure on the Public Works Department rose by more than £26,000. The Shencotta-Quilon railway continued to work at a loss. There was a surplus over expenditure of more than £10,000, but owing to the writing off of abnormal losses, the Durbar balance fell by more than £26,000. More than 5,000 deaths were due to virulent small-pox. Education received considerable attention; education and inspection bodies were introduced, and fees abolished in lower-grade elementary schools. There was a substantial increase in the number of schools and scholars.

In the Cochin State the season was favourable for agriculture. The net revenue of the Forest Department and the percentage of receipts to capital outlay on the tramway both rose. Land revenue almost reached the high-water mark expected under the new settlement demand, and the receipts of the Stamp Department were the highest on record. The net earnings of the State railway rose to 3·73 per cent. on the total capital outlay. Increased attention was paid by the Public Works Department to roads and navigable canals. The sinking fund was augmented by £26,000, and the State's net liabilities were reduced by more than £40,000.

The number of State schools rose from 75 to 93. A special educational officer was appointed and the grant to education was substantially augmented.

In January 1911 announcement was made of the increase of the Raja's salute by two guns, as a personal distinction.

The Pudukkottai State's Report is for the year to 30th June 1911. The season, though more favourable than in 1909–10, was disappointing; prices, however, were below the average. The Settlement scheme for the whole State was sanctioned in January 1911. The total revenue was the highest on record. The public health was generally good and the new water supply for the town of Pudukkottai proved entirely successful. A new Forest Regulation was under the consideration of the Durbar, and a police re-organisation scheme was worked out. In the Educational Department there was a general advance.

The Raja returned to the State in December 1910, but left again for Europe in the following January.

In Banganapalle, the year 1910–11 was prosperous on the whole, though the land revenue receipts fell short of the budget estimate. There was no epidemic, but, owing principally to fever, the death rate rose from 14·96 to 23·73.

In the Sandur State a much improved rainfall resulted in a reduction in the price of food grains during the year 1910–11; wages of labourers were good; the public health was fair and there was no epidemic disease. The revenue showed an advance upon that of the preceding year. The Mission Girls' school was in a flourishing condition, but attendance at the lower secondary school fell off. The Raja remained during the year at the Court of Wards' College at Newington.

# APPENDIX

## CENSUS OF 1911.

The fourth general census of India was taken on the night of 10th March 1911. The date was chosen so as to avoid as far as possible religious festivals and fairs, and other ceremonial occasions. Unfortunately, a serious recrudescence of plague interfered considerably with the enumeration in some parts of India, and caused a large temporary decrease in the population of certain towns, many of the inhabitants having left their homes. The census included the whole of Baluchistan (except Kharan), the agencies and tribal areas of the North-West Frontier Province, and several remote tracts of Burma not previously dealt with. Arrangements were made for the enumeration of persons travelling by rail, road, or river, or otherwise absent from home. The total strength of the census staff was about two millions.

The figures show that the total population of British India was 315,132,537 (viz.:—British territory 244,267,542, and Native States 70,864,995), an increase of 20,771,481 on the returns of the census of 1901. To this increase British territory contributes 12,661,602, and Native States 8,109,879. Allowing for the fact that areas for the first time included had a population of 1,731,116, the increase of the Indian population during the decade 1901–11 was 6·4 per cent.

During the decade 1891–1901, India was afflicted by two severe famines followed by severe epidemics of fever, cholera, and other diseases, which caused great mortality. The decade 1901–11 was fairly prosperous; there were no very widespread famines, and the birth-rate was higher. Plague, however, extended its ravages much more widely, causing 6½ million deaths in the decade, while, in 1908, malarial fever was accountable for heavy mortality in the United Provinces and the Punjab Provinces, which have also suffered severely from plague and local famines.

The following tables show the results of the census as regards the population of (I.) the provinces and Native States; and (II.) the principal towns. The population returned at previous Censuses has been corrected, as far as possible, in order to allow for subsequent interprovincial transfers. The largest changes are those necessitated by the partition of Bengal. The population of Manipur State (total 284,465—males 139,632, females 144,833) which was included under the head British Territory in 1901, has now been included under the head Native States. The tribal areas in the North-West Frontier Province have also been shown under the latter head. Sikkim, which in 1901 was classed under Bengal States, is now shown separately.

The areas newly included within the scope of the enumeration are noted below:—

| Name of Tract. | Manner in which Population ascertained. | Population. |
|---|---|---|
| *Burma.* | | |
| Unadministered area in Pakokku Hill tracts | Estimated | 9,123 |
| West Manglun | Estimated | 18,562 |
| Kokang | Estimated | 25,604 |
| *Baluchistan.* | | |
| Mekran | Enumerated | 71,942 |
| Western Sanjirani country | Enumerated | 1,620 |
| *North-West Frontier Province.* | | |
| Agencies and Tribal areas | Estimated | 1,604,265 |
| | TOTAL | 1,731,116 |

## Census of India, 1911.

### I.—Total Population and Variation, 1901–1911.

| Province, State, or Agency. | Population, 1911. | | | Population, 1901. | | | Variation, 1901–11. | |
|---|---|---|---|---|---|---|---|---|
| | Total. | Males. | Females. | Total. | Males. | Females. | Actual. | Per cent. |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
| 1. Ajmer Merwara | 501,395 | 266,198 | 235,197 | 476,912 | 251,026 | 225,886 | + 24,483 | + 5·1 |
| 2. Andamans and Nicobars | 26,459 | 19,570 | 6,889 | 24,649 | 18,695 | 5,954 | + 1,810 | + 7·3 |
| 3. Baluchistan (*Districts and Administered Territories*). | 414,412 | 239,181 | 175,231 | 401,648 | 230,108 | 171,540 | + 32,306 | + 8·5 |
| 4. Bengal | 52,668,269 | 26,278,865 | 26,389,404 | 50,715,794 | 25,151,960 | 25,563,834 | + 1,952,475 | + 3·8 |
| 5. Bombay (*Presidency*) | 19,672,642 | 10,245,847 | 9,426,795 | 18,559,650 | 9,583,456 | 8,976,194 | + 1,112,992 | + 6·0 |
| *Bombay* | *16,113,042* | *8,275,233* | *7,837,809* | *15,304,766* | *7,791,136* | *7,513,630* | + *808,276* | + *5·3* |
| *Sind* | *3,513,435* | *1,939,324* | *1,574,111* | *3,210,910* | *1,761,790* | *1,449,120* | + *302,525* | + *9·4* |
| *Aden* | *46,165* | *31,290* | *14,875* | *43,974* | *30,530* | *13,444* | + *2,191* | + *5·0* |
| 6. Burma | 12,115,217 | 6,183,494 | 5,931,723 | 10,490,624 | 5,342,033 | 5,148,591 | + 1,624,593 | +15·5 |
| 7. Central Provinces and Berar. | 13,916,308 | 6,930,392 | 6,985,916 | 11,967,132 | 5,924,192 | 6,042,940 | + 1,944,856 | +16·2 |
| 8. Coorg | 174,976 | 97,279 | 77,697 | 180,607 | 100,258 | 80,349 | — 5,631 | — 3·1 |
| 9. Eastern Bengal and Assam. | 34,018,527 | 17,413,910 | 16,604,617 | 30,510,344 | 15,543,023 | 14,967,321 | + 3,508,183 | +11·5 |
| 10. Madras | 41,405,404 | 20,382,955 | 21,022,449 | 38,229,654 | 18,851,329 | 19,378,325 | + 3,175,750 | + 8·3 |
| 11. North-West Frontier Province (*Districts and Administered Territories*). | 2,196,933 | 1,182,102 | 1,014,831 | 2,046,218 | 1,110,378 | 935,840 | + 155,319 | + 7·6 |
| 12. Punjab | 19,974,956 | 10,992,067 | 8,982,889 | 20,330,337 | 10,942,682 | 9,387,655 | — 355,381 | — 1·7 |
| 13. United Provinces of Agra and Oudh. | 47,182,044 | 24,641,831 | 22,540,213 | 47,691,238 | 24,616,617 | 23,074,621 | — 510,233 | — 1·1 |
| *Agra* | *34,624,040* | *18,157,131* | *16,466,909* | *34,858,070* | *18,048,411* | *16,809,659* | — *235,069* | — *·7* |
| *Oudh* | *12,558,004* | *6,484,700* | *6,073,304* | *12,833,168* | *6,568,206* | *6,264,962* | — *276,164* | — *2·1* |
| Total, Provinces | 244,267,542 | 124,873,691 | 119,393,851 | 231,624,807 | 117,665,757 | 113,959,050 | +12,661,602 | + 5·5 |
| 14. Baluchistan (*Agency Tracts*). | 396,432 | 214,413 | 182,019 | 409,098 | 215,412 | 193,686 | — 32,208 | — 7·5 |
| 15. Baroda State | 2,032,798 | 1,055,935 | 976,863 | 1,952,692 | 1,008,634 | 944,058 | + 80,106 | + 4·1 |
| 16. Bengal State | 4,538,161 | 2,271,673 | 2,266,488 | 3,881,448 | 1,954,974 | 1,926,474 | + 656,713 | +16·9 |
| 17. Bombay States | 7,411,675 | 3,765,401 | 3,646,274 | 6,908,559 | 3,512,956 | 3,395,603 | + 503,116 | + 7·3 |
| 18. Central India Agency | 9,356,980 | 4,801,459 | 4,555,521 | 8,514,114 | 4,369,388 | 4,144,726 | + 859,175 | +10·1 |
| 19. Central Provinces States | 2,117,002 | 1,053,630 | 1,063,372 | 1,631,140 | 811,970 | 819,170 | + 485,862 | +29·8 |
| 20. Eastern Bengal and Assam States. | 575,835 | 292,486 | 283,349 | 457,790 | 232,127 | 225,663 | + 118,045 | +25·8 |
| 21. Hyderabad State | 13,374,676 | 6,797,118 | 6,577,558 | 11,141,142 | 5,673,629 | 5,467,513 | + 2,233,534 | +20·0 |
| 22. Kashmir State | 3,158,126 | 1,674,367 | 1,483,759 | 2,905,578 | 1,542,057 | 1,363,521 | + 252,548 | + 8·7 |
| 23. Madras States | 4,811,841 | 2,411,758 | 2,400,083 | 4,188,086 | 2,098,048 | 2,090,038 | + 623,755 | +14·9 |
| *Cochin State* | *918,110* | *457,342* | *460,768* | *812,025* | *405,200* | *406,825* | + *106,085* | +*13·1* |
| *Travancore State* | *3,428,975* | *1,731,363* | *1,697,612* | *2,952,157* | *1,490,165* | *1,461,992* | + *476,818* | +*16·2* |
| 24. Mysore State | 5,806,193 | 2,934,621 | 2,871,572 | 5,539,399 | 2,797,024 | 2,742,375 | + 266,794 | + 4·8 |
| 25. North-West Frontier Province (*Agencies and Tribal Areas*). | 1,622,094 | 864,876 | 757,218 | 79,278 | 48,939 | 30,339 | + 1,538,132 | — |
| 26. Punjab States | 4,212,794 | 2,322,908 | 1,889,886 | 4,424,398 | 2,409,809 | 2,014,589 | — 211,604 | — 4·8 |
| 27. Rajputana Agency | 10,530,432 | 5,515,275 | 5,015,157 | 9,842,416 | 5,165,891 | 4,676,525 | + 677,066 | + 6·9 |
| 28. Sikkim | 87,920 | 45,059 | 42,861 | 59,014 | 30,795 | 28,219 | + 28,906 | +49·0 |
| 29. United Provinces States | 832,036 | 431,440 | 400,596 | 802,097 | 414,414 | 387,683 | + 29,939 | + 3·7 |
| Total, States and Agencies. | 70,864,995 | 36,452,419 | 34,412,576 | 62,736,249 | 32,286,067 | 30,450,182 | + 8,109,879 | +12·9 |
| Total, India | 315,132,537 | 161,326,110 | 153,806,427 | 294,361,056 | 149,951,824 | 144,409,232 | +20,771,481 | + 7·1 |

### II.—Population of Principal Towns.

In some towns where plague was prevalent at the time of the Census, many of the inhabitants were absent from their homes and the population was shown as far less than it would otherwise have been. A fresh enumeration was taken later, after the epidemic had subsided, and the figures for Nagpur and Cawnpore given in the following table are provisional results of this enumeration.

## II. Population of Principal Towns and Variation, 1901–1911.

| City. | Population, 1911. | | | Population, 1901. | | | Variation, 1901–11. | |
|---|---|---|---|---|---|---|---|---|
| | Total. | Males. | Females. | Total. | Males. | Females. | Actual. | Per cent. |
| 1. | 2. | 3. | 4. | 5. | 6. | 7. | 8. | 9. |
| Calcutta with Suburbs and Howrah. | 1,222,313 | 812,433 | 409,880 | 1,106,738 | 724,759 | 381,979 | +115,575 | +10·4 |
| Bombay* - - | 979,445 | 640,288 | 339,157 | 776,006 | 479,786 | 296,220 | +203,439 | +26·2 |
| Madras - - - | 518,660 | 266,465 | 252,195 | 509,346 | 256,730 | 252,616 | + 9,314 | + 1·8 |
| Hyderabad - | 500,623 | 258,454 | 242,169 | 448,466 | 232,295 | 216,171 | + 52,157 | +11·6 |
| Rangoon - - - | 293,316 | 208,111 | 85,205 | 245,430 | 174,587 | 70,843 | + 47,886 | +19·5 |
| Lucknow - - | 259,798 | 144,785 | 115,013 | 264,049 | 140,759 | 123,290 | — 4,251 | — 1·6 |
| Delhi - - - | 232,837 | 133,864 | 98,973 | 208,575 | 114,815 | 93,760 | + 24,262 | +11·6 |
| Lahore - - - | 228,687 | 143,249 | 85,438 | 202,964 | 119,996 | 82,968 | + 25,723 | +12·7 |
| Ahmedabad - - | 215,835 | 116,469 | 99,366 | 185,889 | 97,343 | 88,546 | + 29,946 | +16·1 |
| Benares - - - | 203,804 | 105,815 | 97,989 | 213,079 | 110,782 | 102,297 | — 9,275 | — 4·4 |
| Cawnpore† - - | 195,498 | 115,243 | 80,255 | 202,797 | 114,573 | 88,224 | — 7,299 | — 3·6 |
| Bangalore (including Civil and Military Station). | 189,485 | 97,749 | 91,736 | 159,046 | 81,086 | 77,960 | + 30,439 | +19·1 |
| Agra - - - | 185,449 | 101,335 | 84,114 | 188,022 | 99,903 | 88,119 | — 2,573 | — 1·4 |
| Allahabad - - | 171,697 | 96,208 | 75,489 | 172,032 | 91,762 | 80,270 | — 335 | — ·2 |
| Poona - - - | 158,856 | 85,319 | 73,537 | 153,320 | 80,065 | 73,255 | + 5,536 | + 3·6 |
| Amritsar - - - | 152,756 | 88,879 | 63,877 | 162,429 | 93,199 | 69,230 | — 9,673 | — 6·0 |
| Karachi - - - | 151,903 | 90,233 | 61,670 | 116,663 | 68,386 | 48,277 | + 35,240 | +30·2 |
| Mandalay - - | 138,299 | 69,718 | 68,581 | 183,816 | 93,583 | 90,233 | — 45,517 | —24·8 |
| Jaipur - - - | 137,098 | 70,846 | 66,252 | 160,167 | 83,854 | 76,313 | — 23,069 | —14·4 |
| Patna - - - | 136,153 | 70,841 | 65,318 | 134,785 | 67,038 | 67,747 | + 1,368 | + 1·0 |
| Nagpore† - - | 134,712 | 70,941 | 63,771 | 127,734 | 66,255 | 61,479 | + 6,978 | + 5·5 |
| Madura - - - | 134,130 | 67,091 | 67,039 | 109,760 | 54,512 | 55,248 | + 24,370 | +22·2 |
| Bareilly - - - | 129,462 | 70,601 | 58,861 | 133,167 | 70,933 | 62,234 | — 3,705 | — 2·8 |
| Srinagar - - - | 126,344 | 68,378 | 57,966 | 122,618 | 65,542 | 57,076 | + 3,726 | + 3·0 |
| Trichinopoly - - | 122,028 | 60,513 | 61,515 | 104,721 | 51,215 | 53,506 | + 17,307 | +16·5 |
| Meerut - - - | 116,227 | 66,286 | 49,941 | 118,129 | 65,568 | 52,561 | — 1,902 | — 1·6 |
| Surat - - - - | 114,868 | 59,634 | 55,234 | 119,306 | 61,653 | 57,653 | — 4,438 | — 3·7 |
| Dacca - - - | 108,551 | 63,091 | 45,460 | 89,733 | 49,871 | 39,862 | + 18,818 | +21·0 |
| Jubbulpore - - | 100,651 | 56,035 | 44,616 | 90,533 | 46,989 | 43,544 | + 10,118 | +11·2 |

* Plague was raging in Bombay when the Census of 1901 was taken. At a special Census taken in 1906 the population was 959,537.

† The 1911 figures for Cawnpore and Nagpore are based on the provisional returns of a later Census taken after the plague had subsided.

# BIBLIOGRAPHY OF INDIAN OFFICIAL REPORTS, &c.

(MOSTLY ANNUAL.)

*General.*

Statistical Abstract relating to British India (Parliamentary Paper).
Statistics of British India.

*Administration.*

Administration Reports for each Province.

*Legislation.*

Acts of the Legislative Councils of India, Madras, Bombay, United Provinces, Punjab, Bengal, Burma, and Eastern Bengal and Assam.

*Justice and Police.*

Reports on Civil Justice in each Province.
Reports on Criminal Justice in each Province.
Reports on Police in each Province and in Bombay Town and Island, Calcutta, and Rangoon.
Reports on Jails in each Province.
Reports on Reformatory Schools in each Province.

*Finance.*

Finance and Revenue Accounts of the Government of India.
East India Financial Statement (Parliamentary Paper).
Return of Net Income and Expenditure for eleven years (Parliamentary Paper).
Accounts and Estimates: Explanatory Memorandum (Parliamentary Paper).
Home Accounts (Parliamentary Paper).
Estimate of Revenue and Expenditure (Parliamentary Paper).
Loans raised in England (Half-yearly Parliamentary Paper).
Loans raised in India (Half-yearly Parliamentary Paper).
Mint Reports for Calcutta and Bombay.
Miscellaneous Financial Statistics.

*Land Revenue, &c.*

Land Revenue Administration Provincial Reports for Lower Provinces (Bengal), Eastern Bengal and Assam, United Provinces, Bombay Presidency (including Sind), Punjab, the Punjab Canal Colonies, Central Provinces and Berar, Burma, and Madras.
Report on Land Revenue Administration, Land Records, Settlement Operations, Alienation of Land Act, &c. for North West Frontier Province.
Madras Survey Settlement and Land Records Department Report.
Reports on Land Records Department for Bombay, Burma, Bengal, United Provinces, and Punjab.
Report on Settlement Operations, Punjab.
Report on Survey and Settlement Operations, Bengal and Eastern Bengal and Assam.
Report on Operations of the Land Records and Settlement Departments, Central Provinces and Berar.
Reports of the Talukdari Settlement Officer, Bombay.
Provincial Reports on Court of Wards' Estates.

*Taxation and Opium.*

Salt Departments: Reports for Northern India, Madras, Bombay, Sind, Burma, Bengal and Eastern Bengal and Assam.
Excise Reports for each Province.
Customs Reports for Bengal, Eastern Bengal and Assam, Madras, Bombay, Sind, and Burma.
Stamp Reports for each Province.
Income Tax Reports for each Province.
Provincial Rates Reports for Bengal and Eastern Bengal and Assam.
Reports on Registration for each Province.
Reports on Opium Departments, Bengal and Bombay.

*Agriculture.*

Season and Crop Reports for each Province.
Agricultural Statistics.
Area and Yield of certain Crops.
Report on Production of Tea in India.
Reports on Co-operative Credit Societies for each Province.
Report of Annual Conference of Registrars of Co-operative Credit Societies.

*Forests.*

Review of Forest Administration in British India.
Reports on Forest Administration in each Province.

*Mineral Production.*

Review of Mineral Production (in Records of Geological Survey).
Report on Production of Coal in India.

*Manufactures.*
Statistics of British India. (Part I. Industrial.)
Reports on the working of the Indian Factories Act in each Province.

*Trade.*
Annual Statement of Trade and Navigation, Foreign and Coasting.
Review of the Trade of India (Parliamentary Paper).
Tables of the Trade of India (Parliamentary Paper).
Provincial Reports on Maritime Trade (including working of Merchandise Marks Act) for Bengal, Eastern Bengal and Assam, Bombay, Sind, Madras, and Burma.
Returns of Sea-borne Trade (monthly).
Returns of Land Trade (monthly).
External Land Trade Reports for Bengal, Eastern Bengal and Assam, Burma, Punjab, North West Frontier Province, Sind and British Baluchistan.
Indian Trade Journal (weekly).
List of Joint-Stock Companies in British India and Mysore.

*Public Works.*
Administration Report on Railways (Parliamentary Bluebook).
Railways and Irrigation Works. Return of Capital Expenditure, &c. (Parliamentary Paper).
Reports on Public Works: Madras, Punjab, and North West Frontier Province.
Reports on Financial Results of Irrigation Operations.
Reports on Irrigation Revenue in each Province.
Reports of Madras and Bombay Irrigation Departments.

*Post Office and Telegraphs.*
Post Office Report.
Report of Indian Telegraph Department.
Report of Indo-European Telegraph Department.

*Scientific Departments.*
Report of Survey of India.
Records and Memoirs of the Geological Survey of India.
Report on the Meteorological Department.
Indian Weather Review, Annual Summary.
Rainfall of India.
Report on the Progress of Agriculture in India.
Report of the Agricultural Research Institute and College, Pusa.
Bulletins of the Agricultural Research Institute, Pusa.
Memoirs of the Department of Agriculture.
Proceedings of the Board of Agriculture.
Agricultural Journal (quarterly).
Reports of the Departments of Agriculture in each Province.
Reports on various Agricultural Stations, Experimental Farms, and Botanic Gardens.
Administration Report of the Civil Veterinary Department in India.
Reports of the Civil Veterinary Departments for Madras, Bombay, Punjab, Bengal, Eastern Bengal and Assam, and North West Frontier Province.
Reports of the Forest Research Institute and the Dehra Dun Forest School.
Forest Memoirs.
Forest Records.
Report of the Board of Scientific Advice.
Reports of Archæological Survey of India and Local Reports.

*Education, Literature, and the Press.*
Education Reports for each Province.

*Local Self-Government.*
Reports on Municipalities for each Province and for Calcutta, Bombay City, Madras City, and Rangoon.
Reports on District (or Local) Boards or Local Funds for each Province.
Reports of Port Trusts of Calcutta, Bombay, Madras, Rangoon, and Karachi.

*Vital Statistics.*
Report of the Sanitary Commissioner with the Government of India.
Report on Sanitary Measures in India (Parliamentary Paper).
Reports of the Sanitary Commissioners for each Province.
Vaccination Reports for each Province.
Reports on Civil Hospitals and Dispensaries for each Province.
Reports on Lunatic Asylums for each Province.

*Emigration and Immigration.*
Calcutta Port Emigration Report.
Bengal Inland Emigration Report.
Assam Immigration Report.

*Prices and Wages.*
Prices and Wages in India.
Variations in Indian Price Levels.

00134463

Digitized with financial assistance from

Government of Maharashtra

on 01 February, 2020